

#3

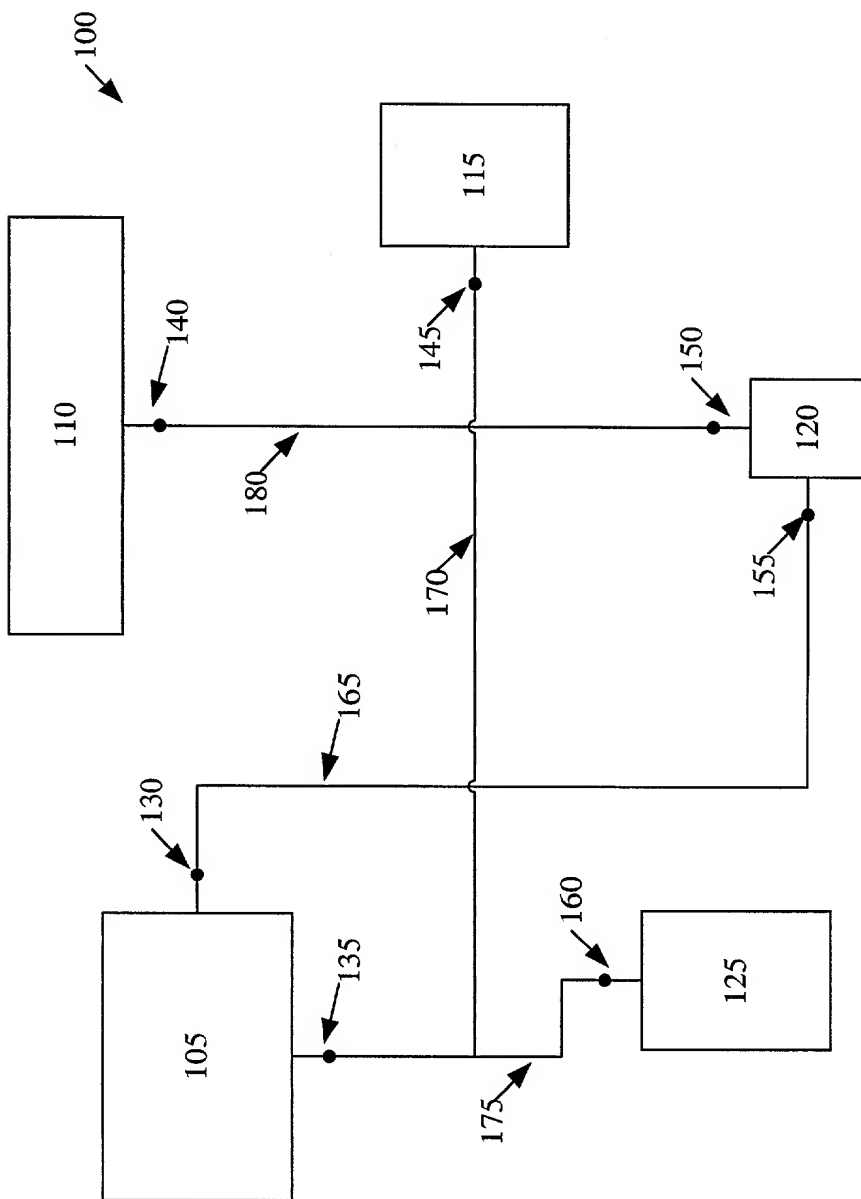
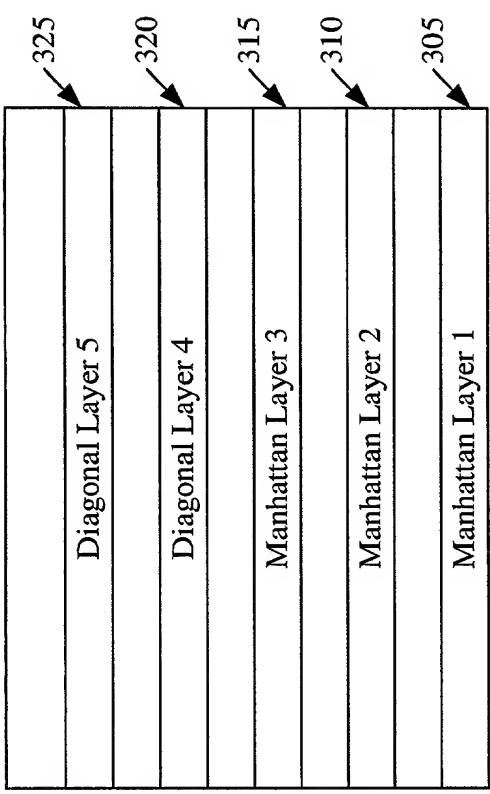


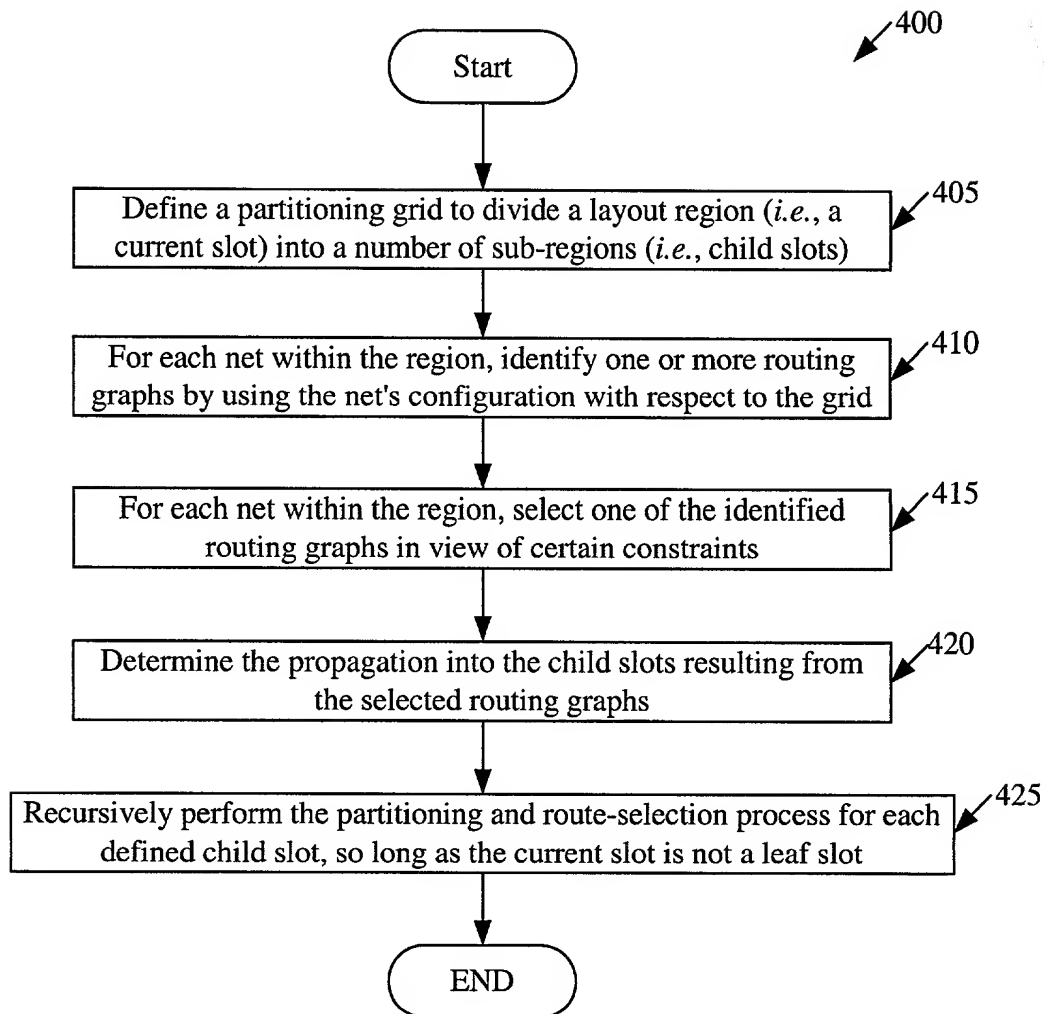
Figure 1



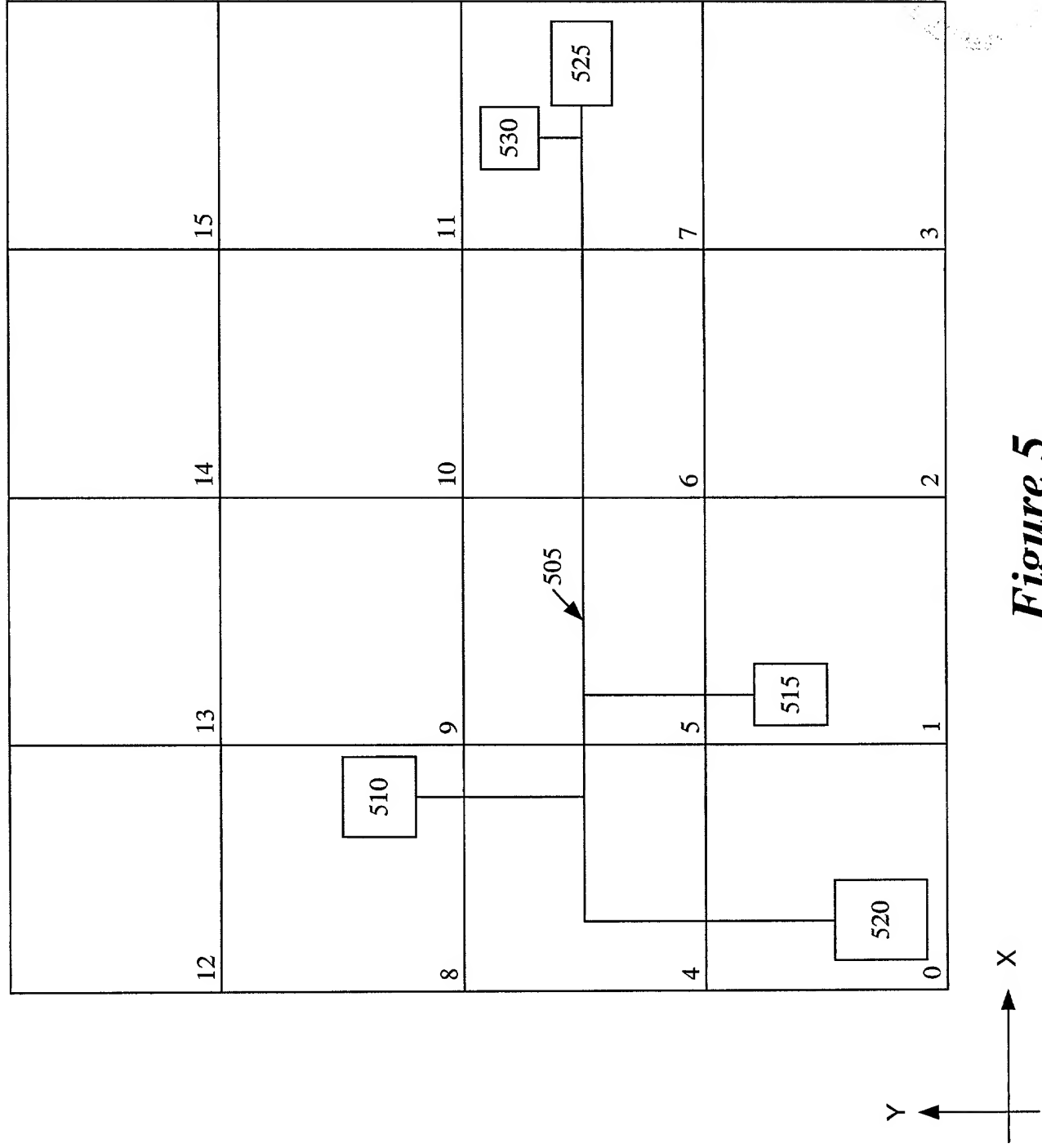
FIG. 3 is a schematic diagram of a multi-layered structure 300. The structure 300 includes a substrate 305, a first layer 310, a second layer 315, a third layer 320, and a fourth layer 325. The layers 310, 315, 320, and 325 are stacked on top of each other, with the substrate 305 at the bottom. The layers 310, 315, 320, and 325 are labeled with arrows pointing to their respective layers.



*Figure 3*



**Figure 4**



*Figure 5*

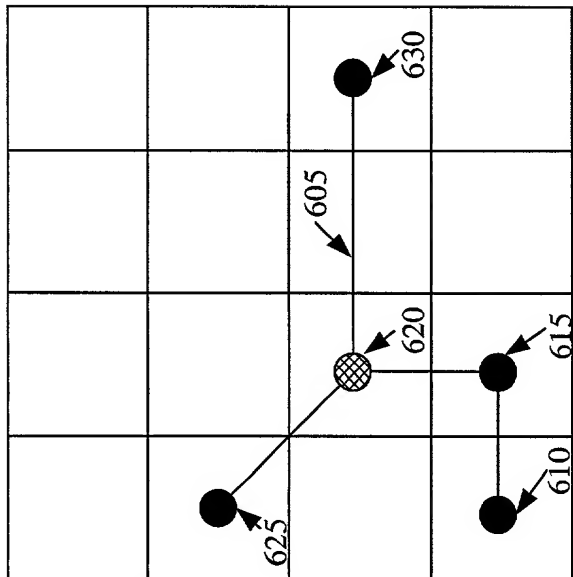


Figure 6

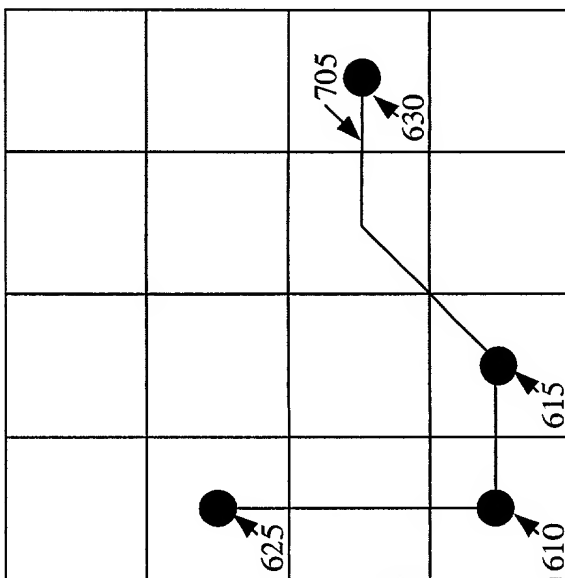


Figure 7

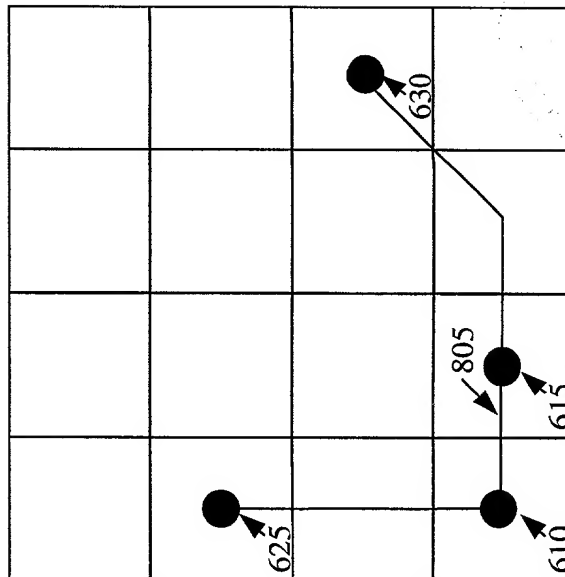


Figure 8

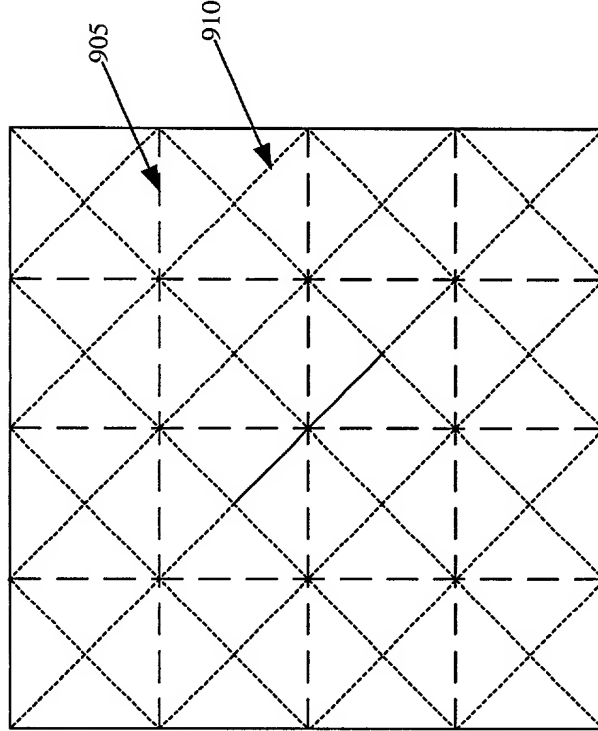


Figure 9

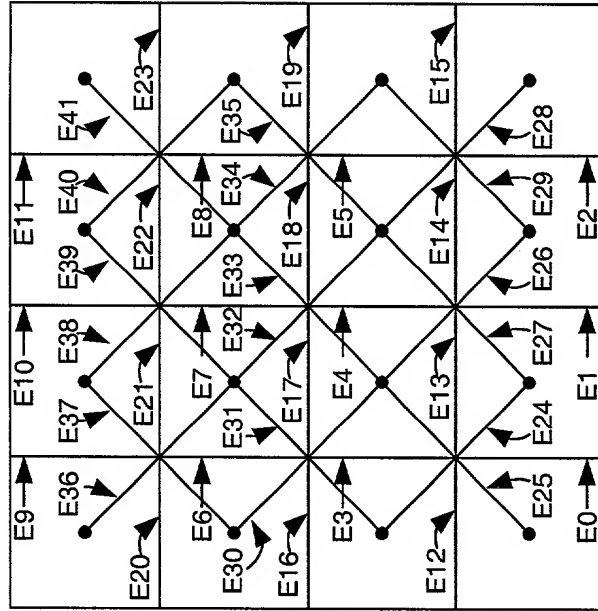
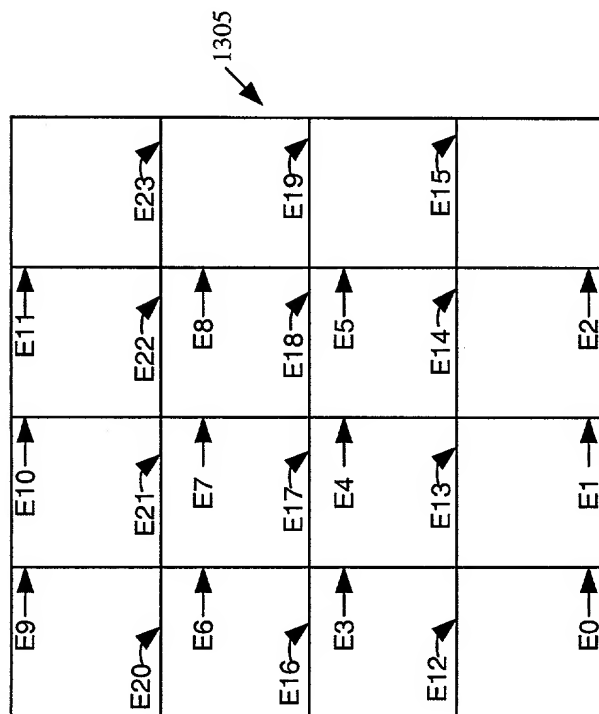


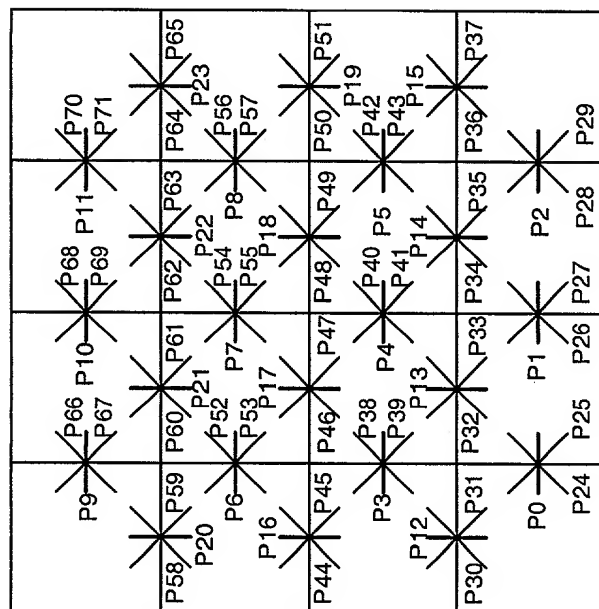
Figure 10







**Figure 13**



## Figure 14

Figure 15

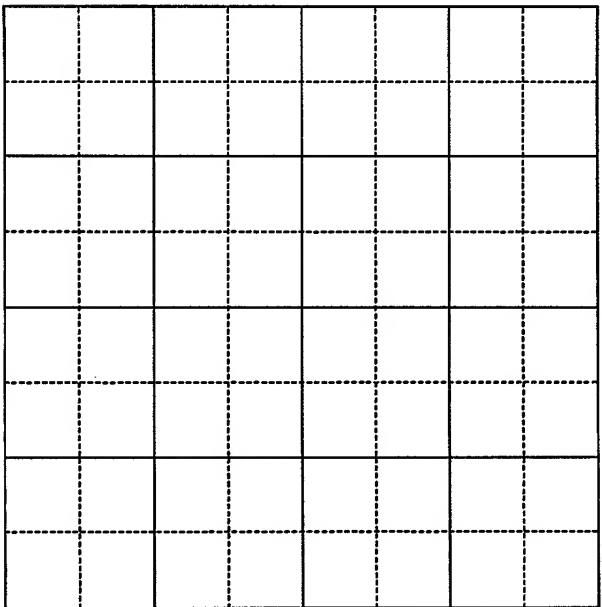


Figure 15

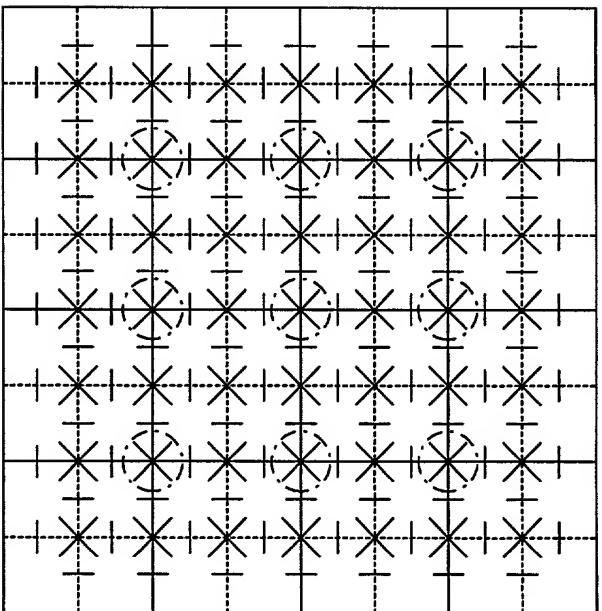


Figure 17



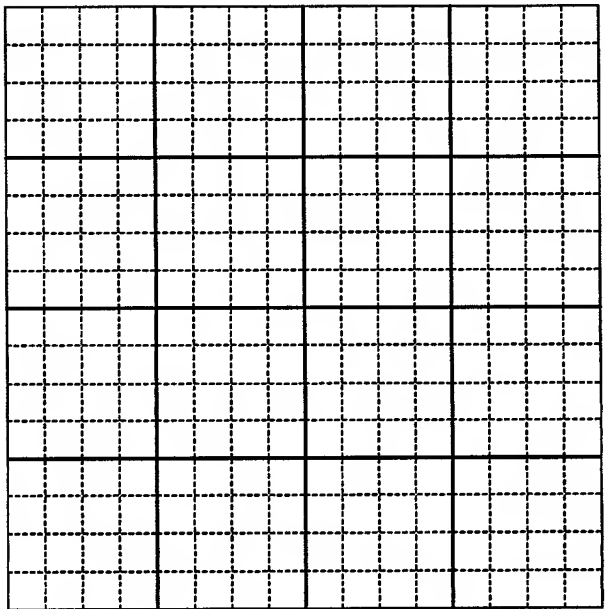


Figure 16

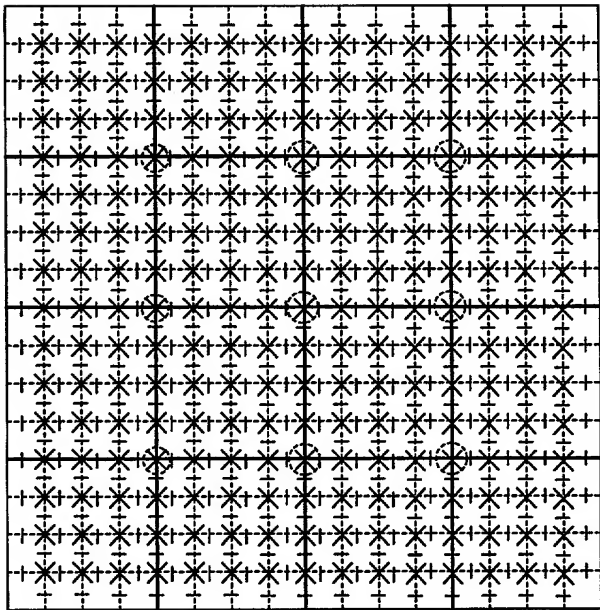
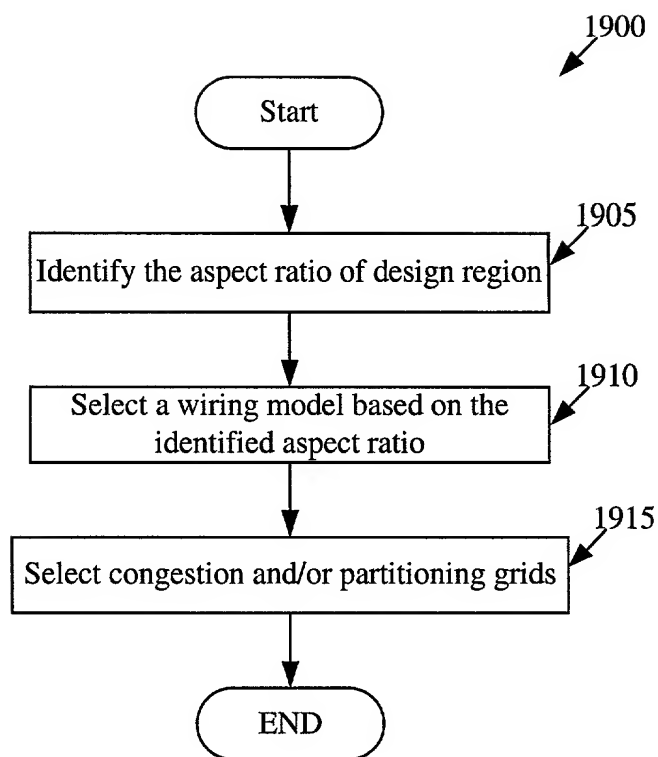
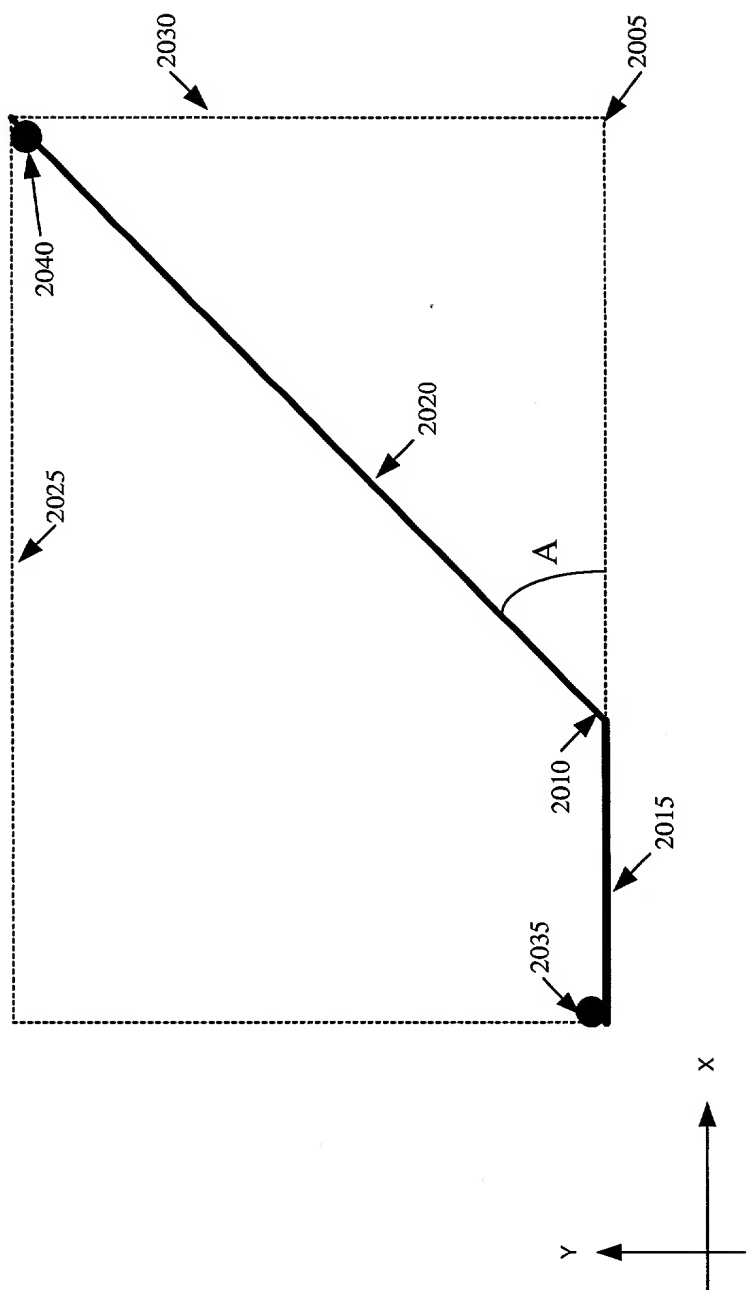


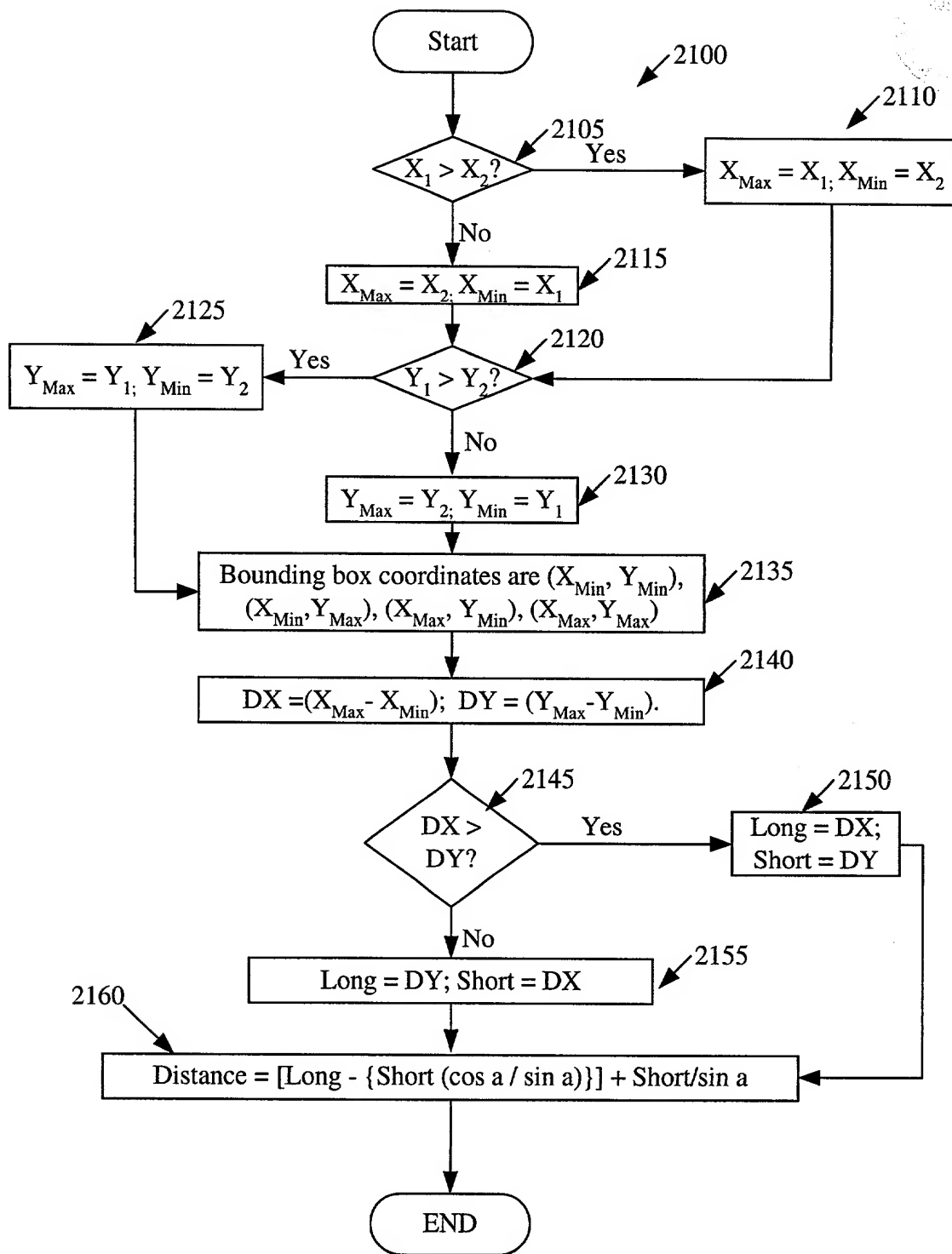
Figure 18



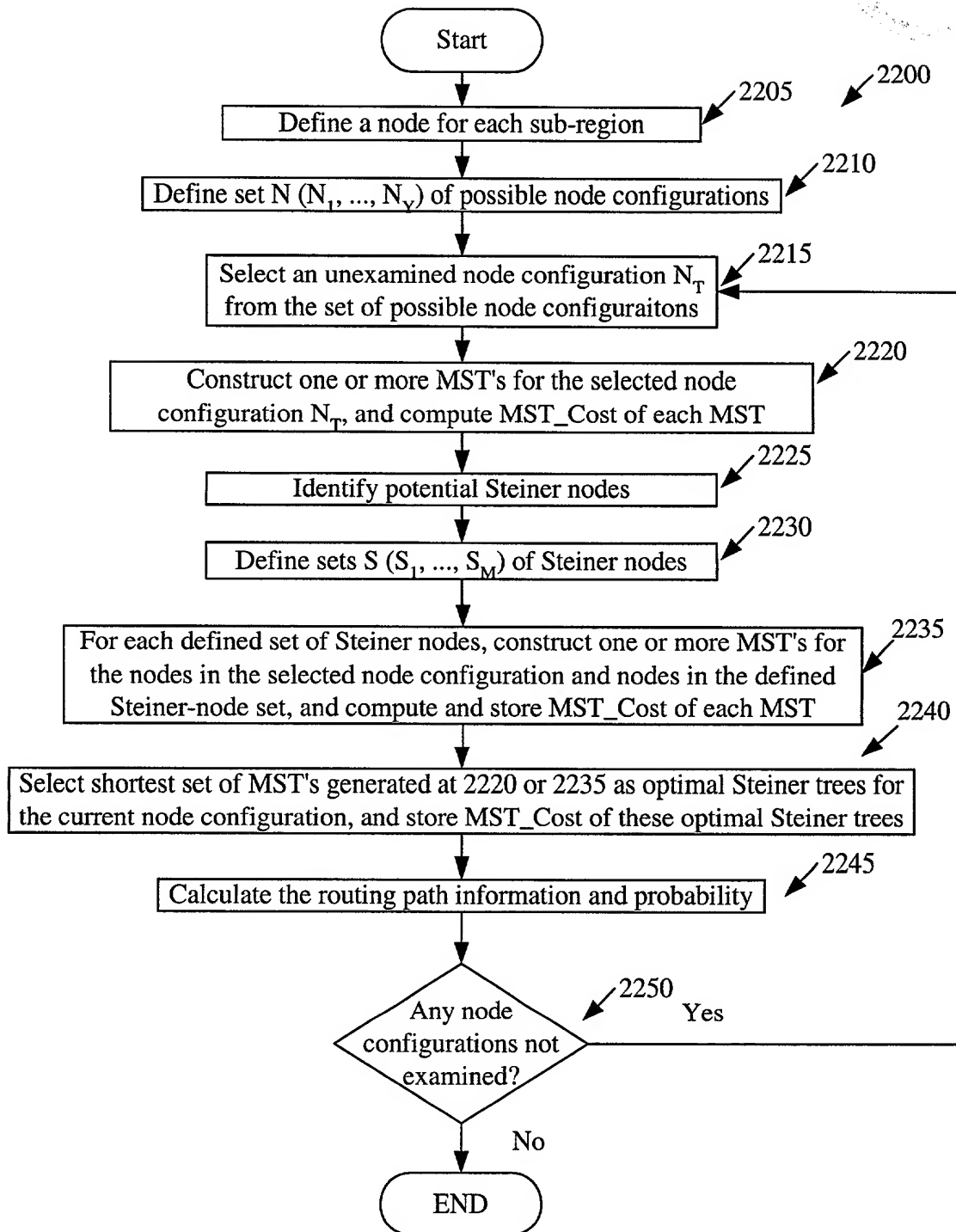


**Figure 19**





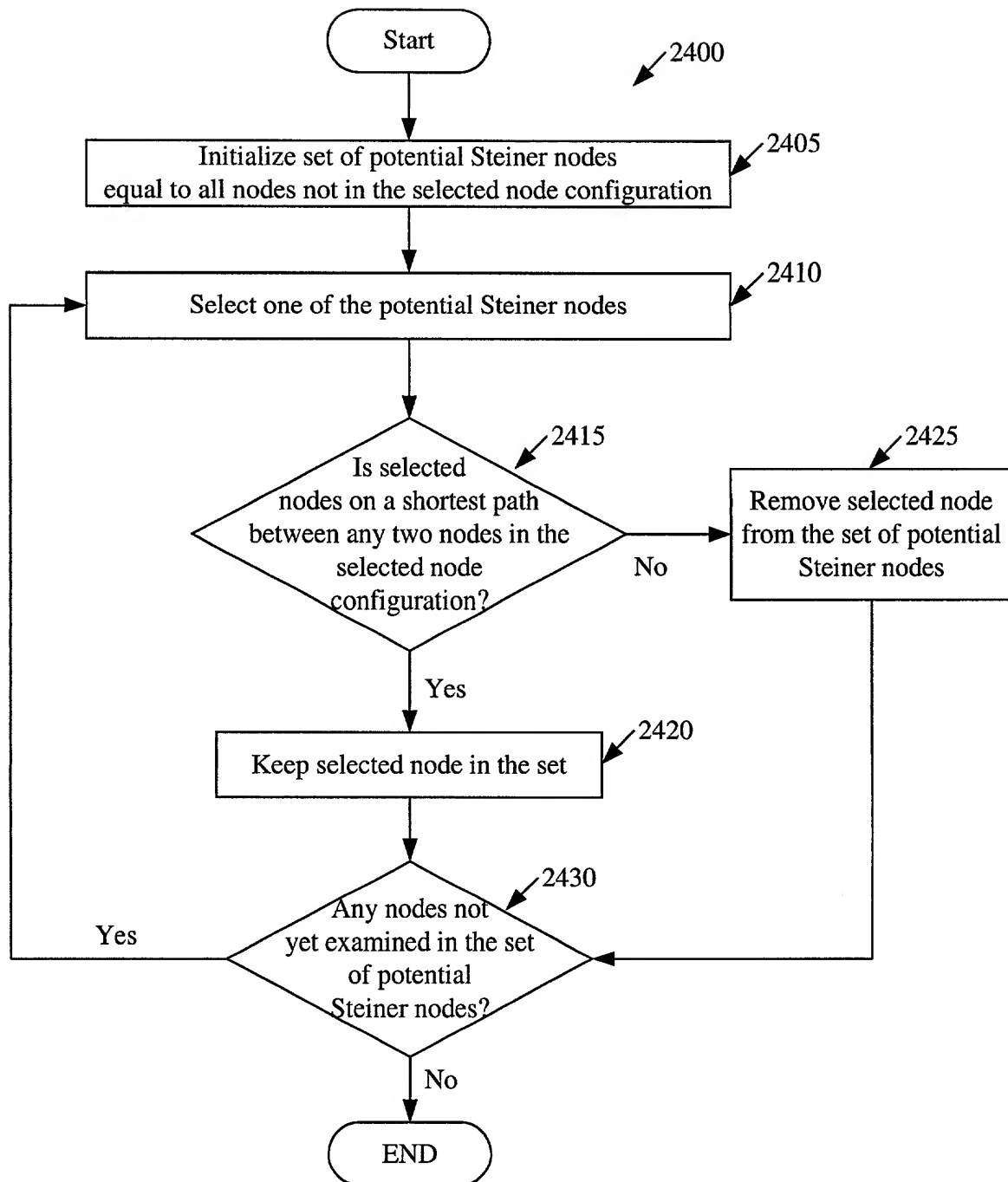
**Figure 21**



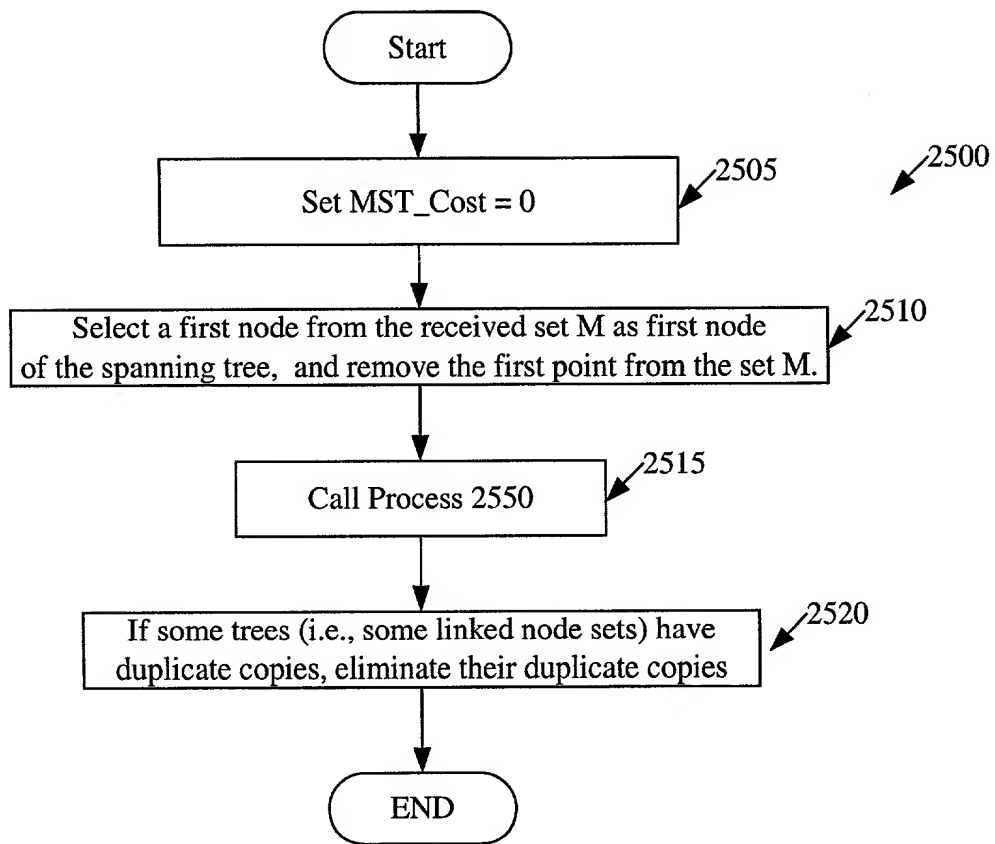
**Figure 22**



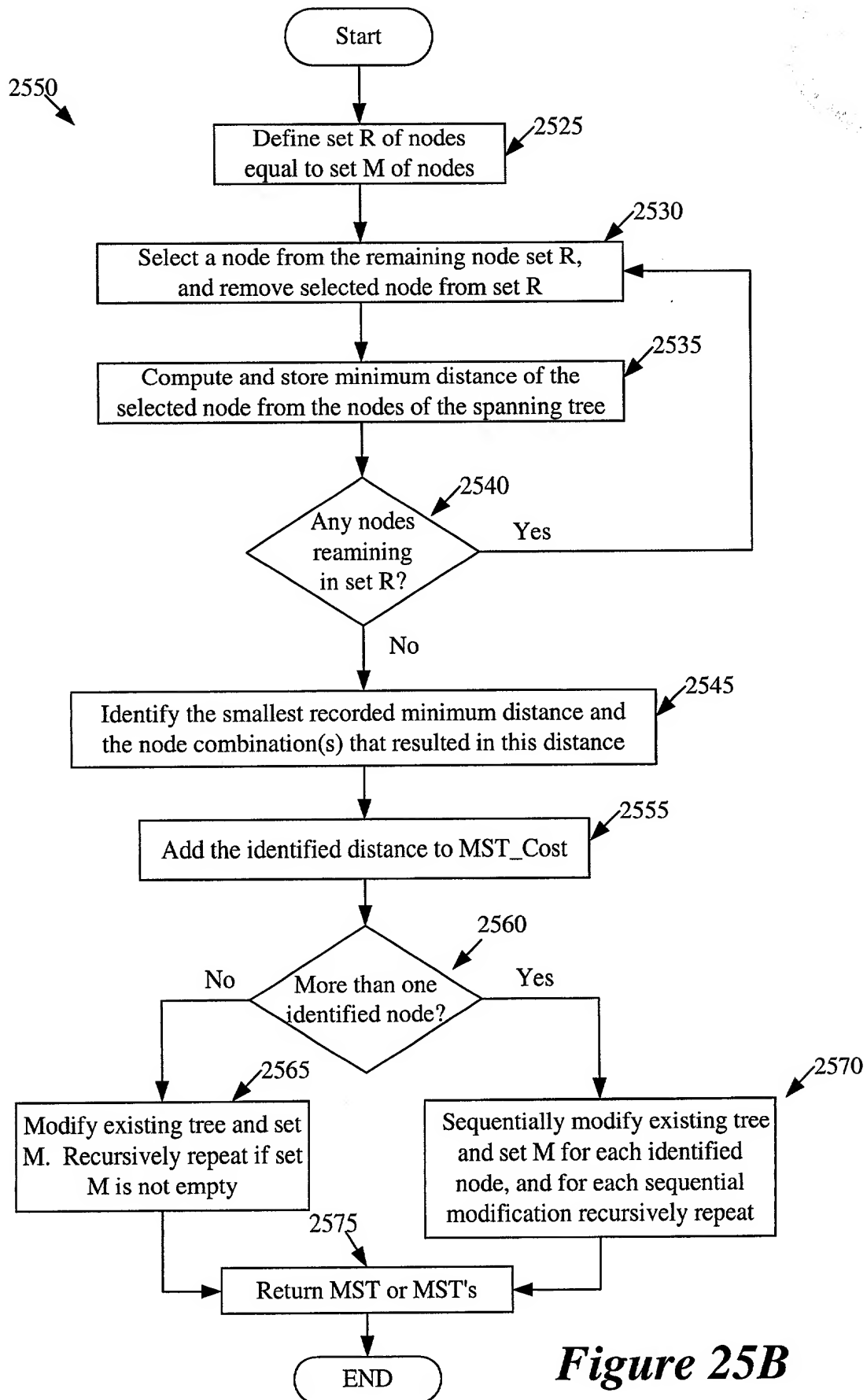




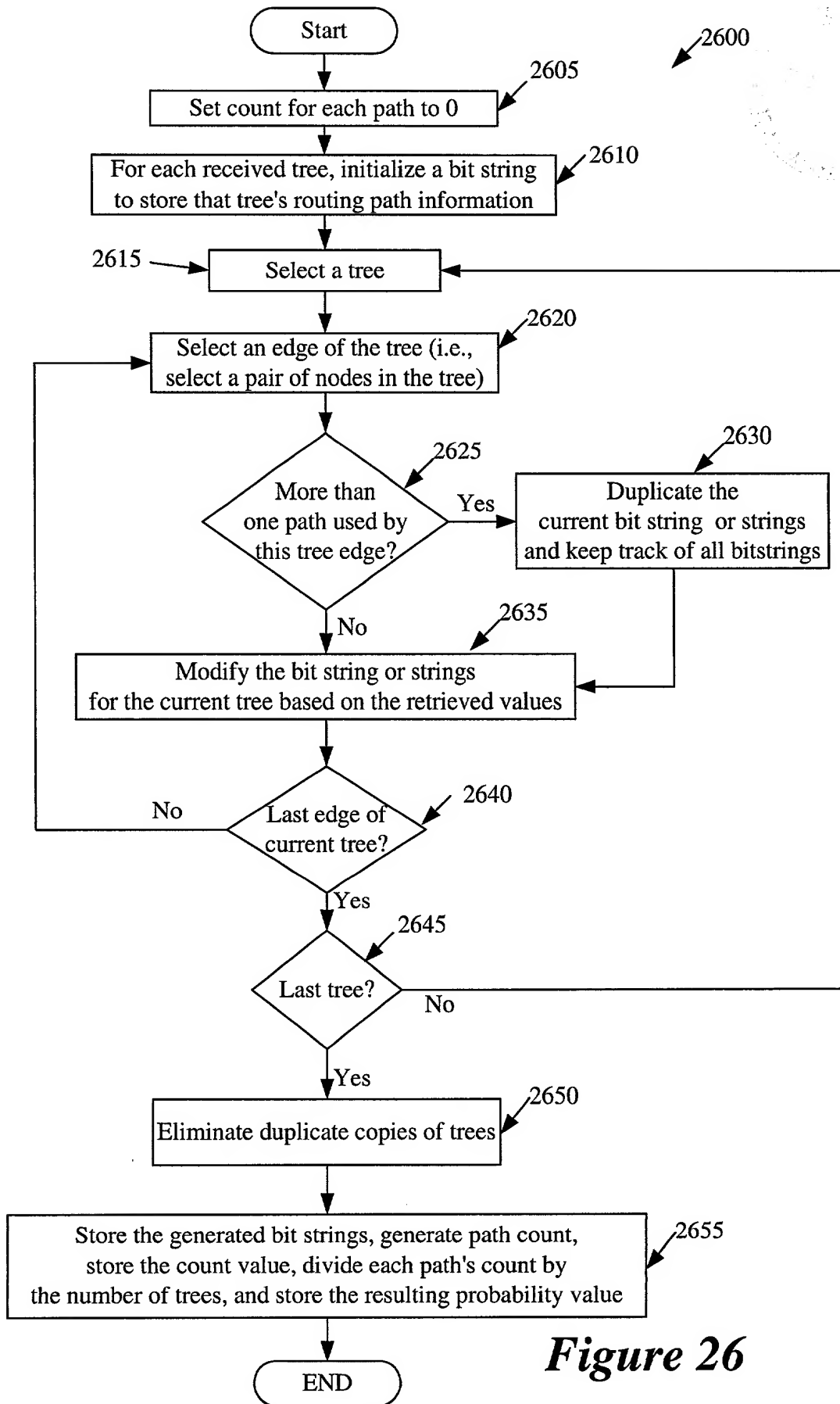
**Figure 24**



**Figure 25A**

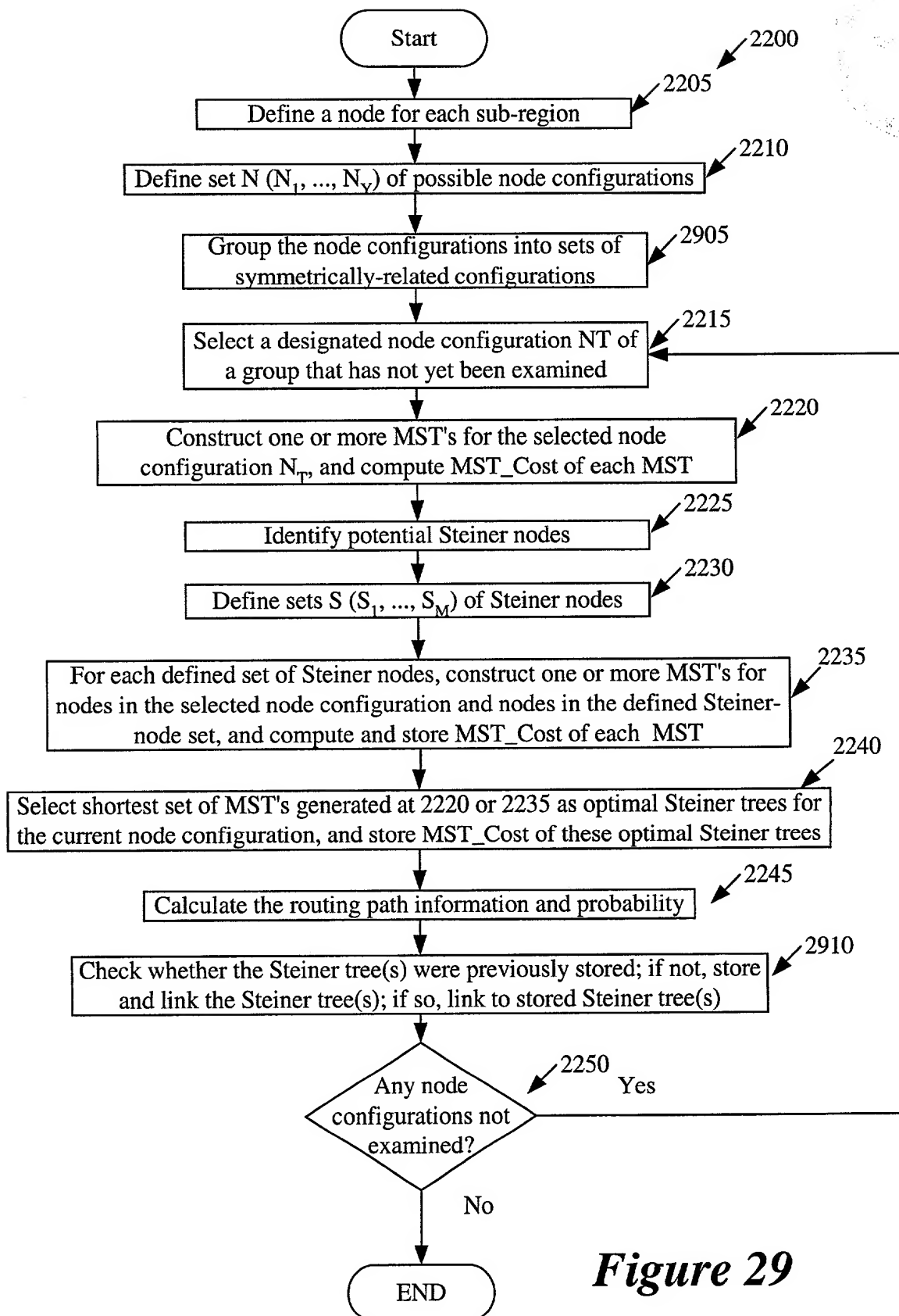


**Figure 25B**



**Figure 26**





**Figure 29**

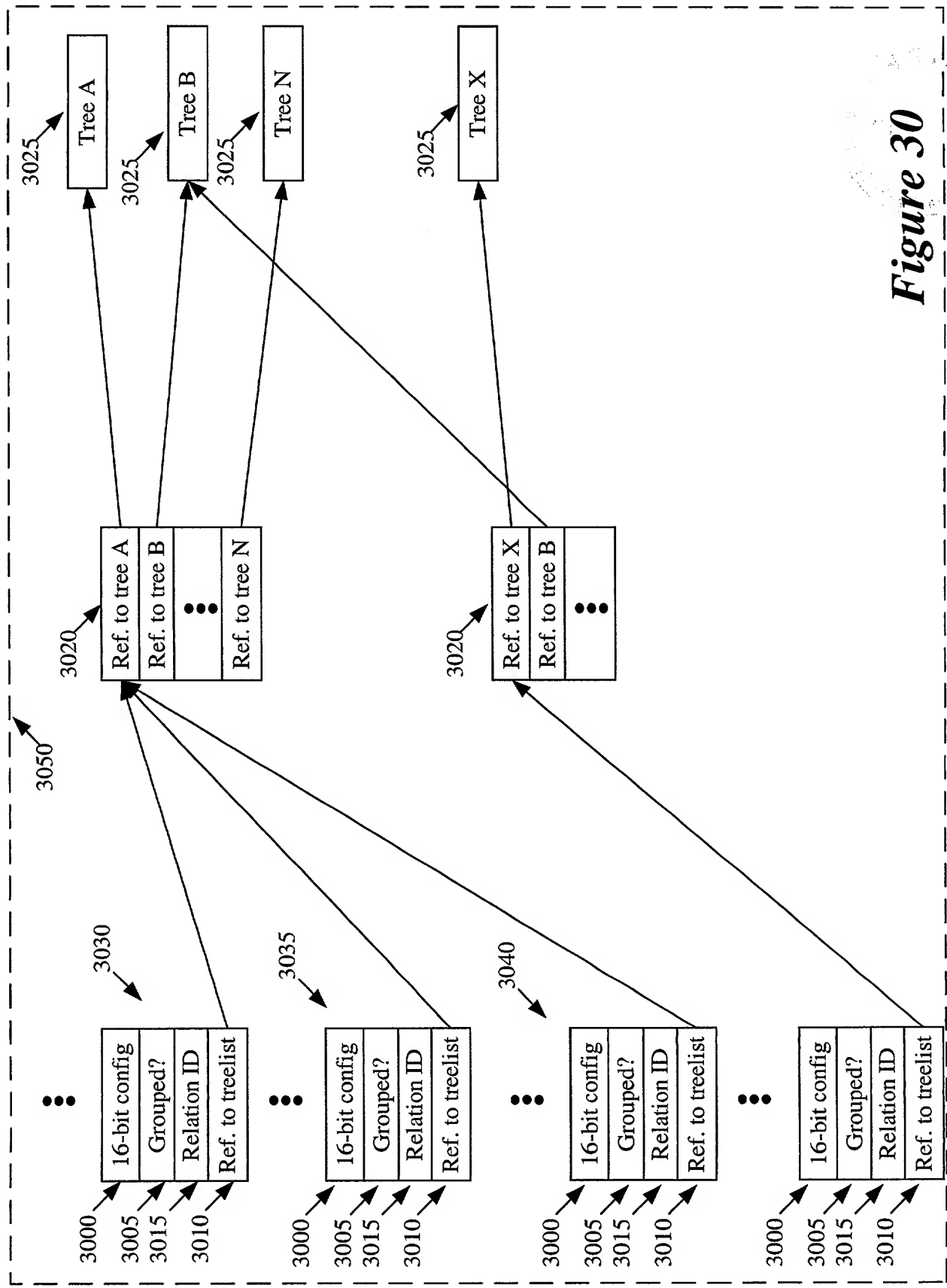
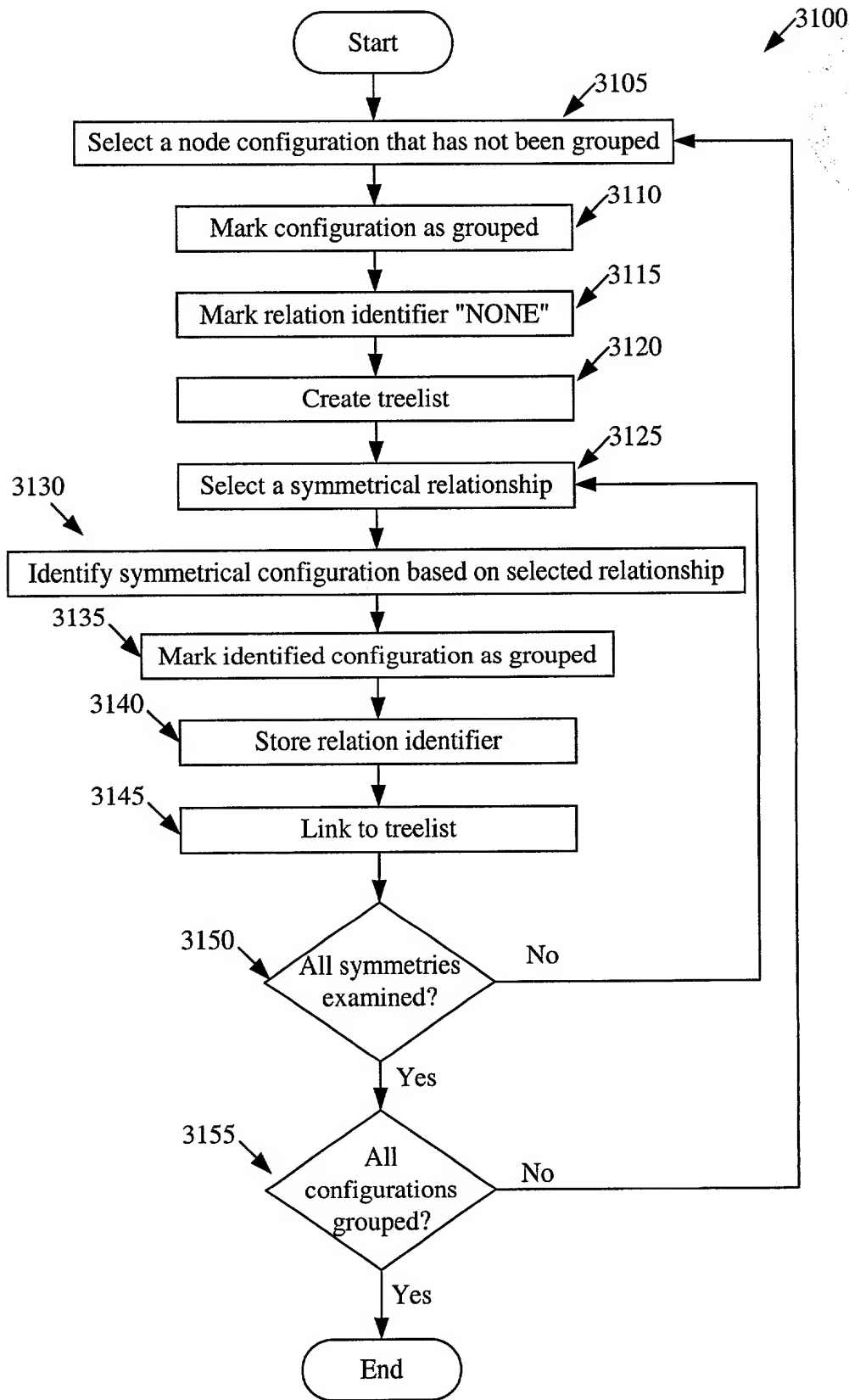
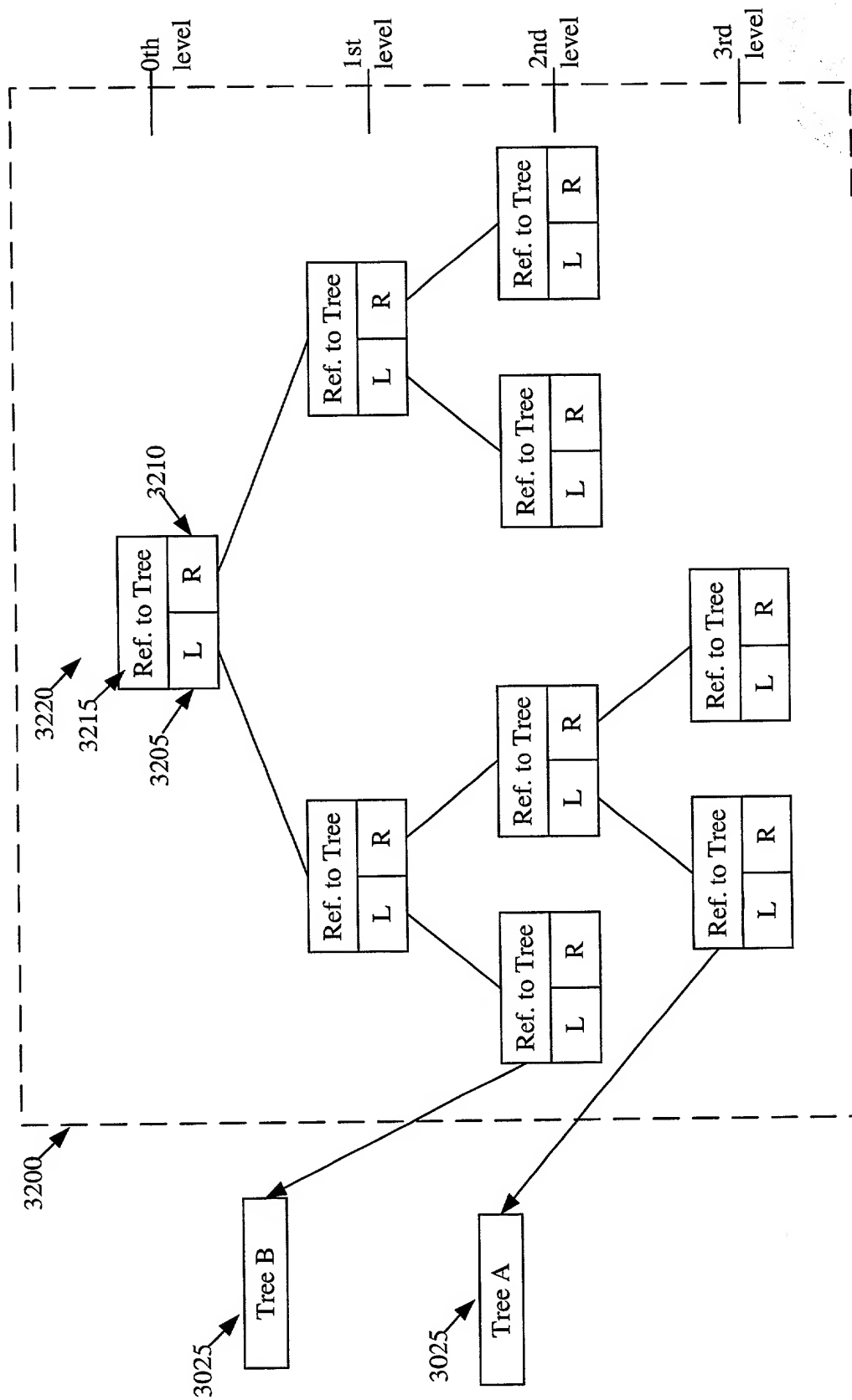


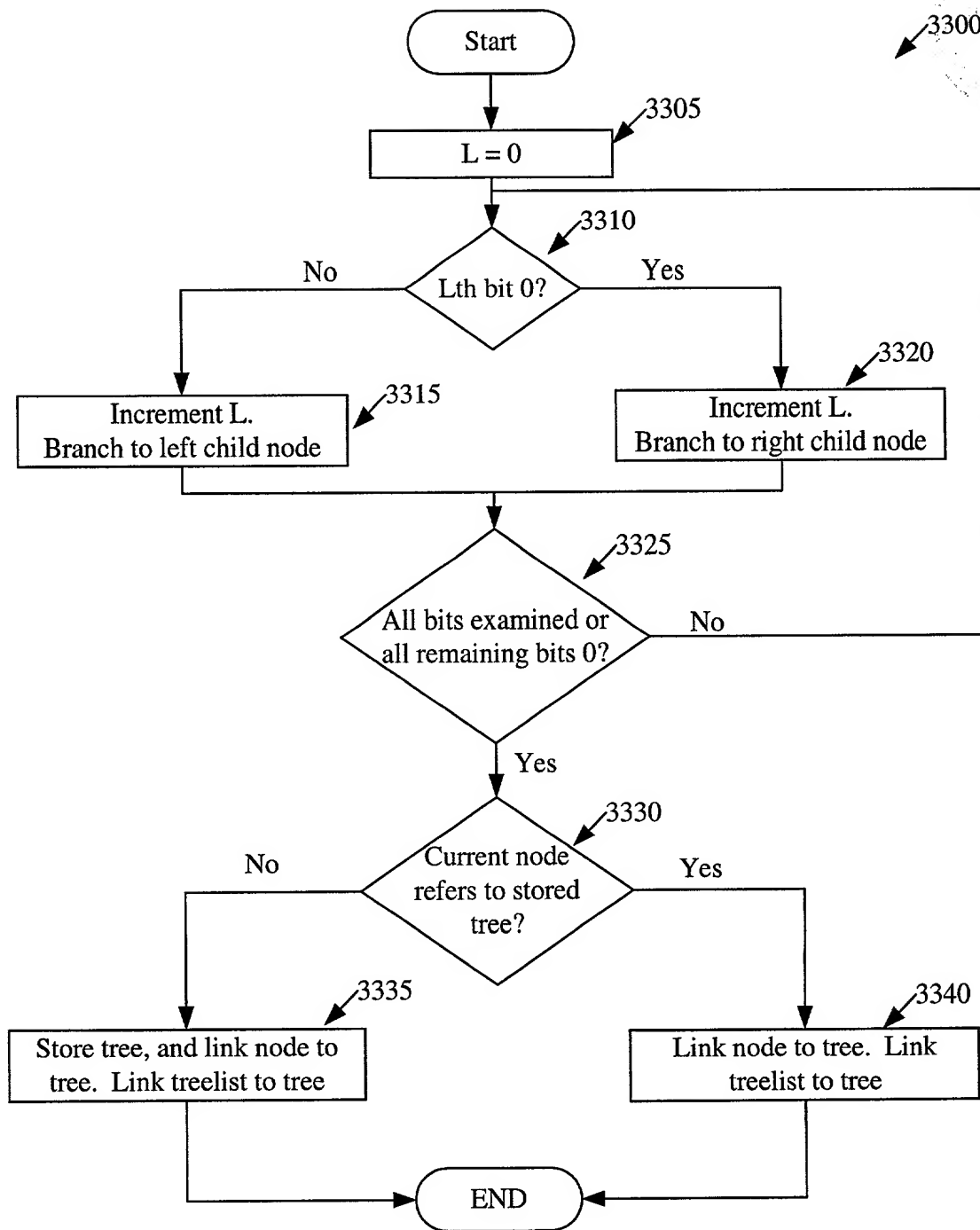
Figure 30



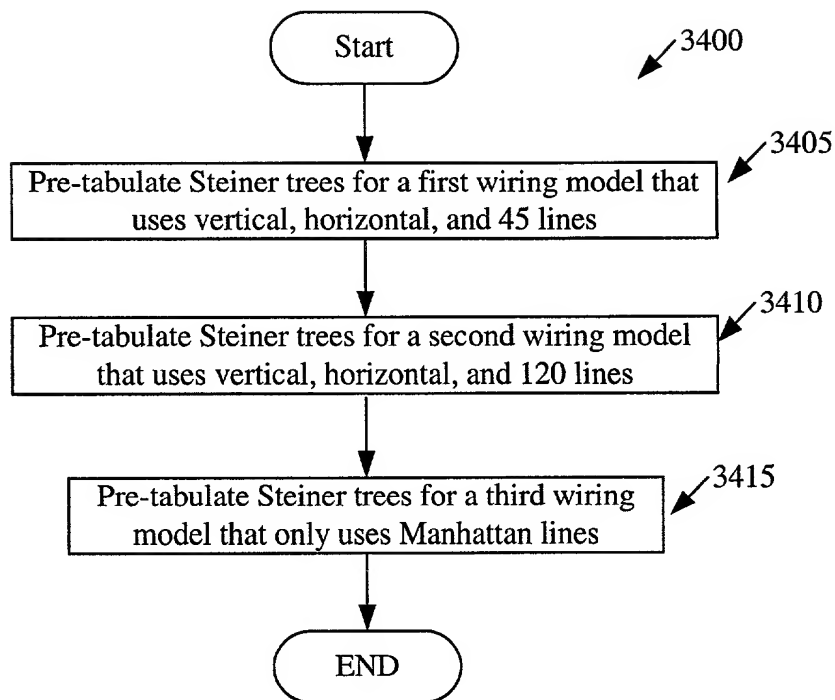
**Figure 31**





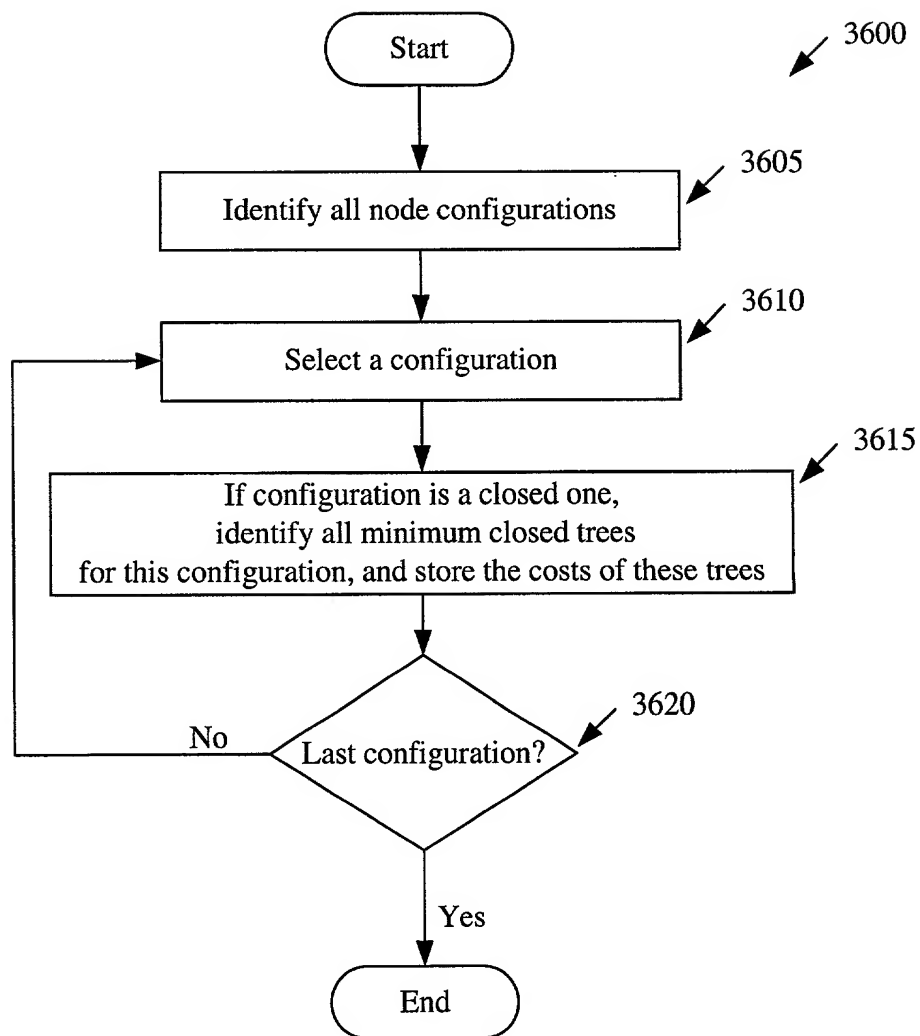


**Figure 33**

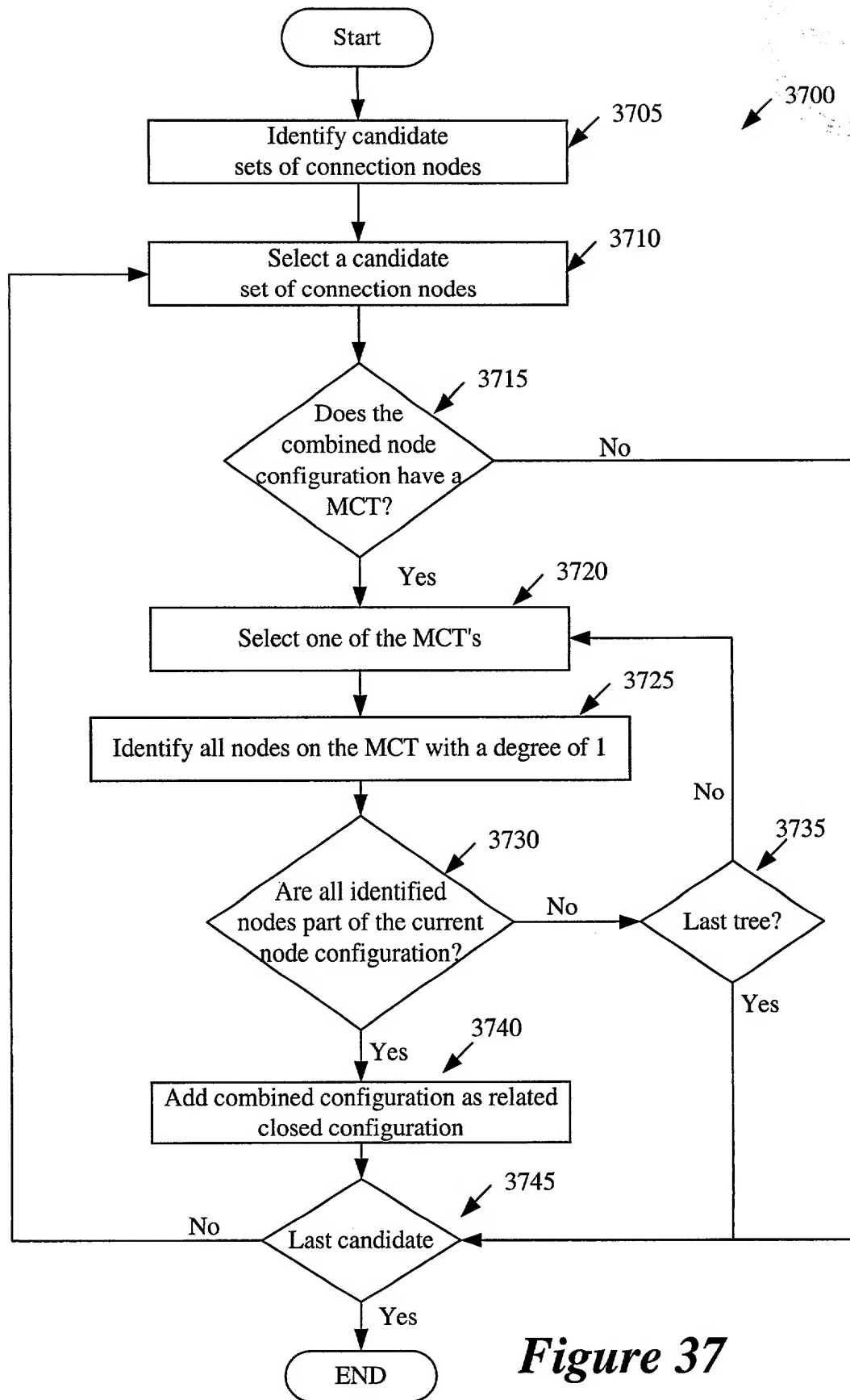


***Figure 34***

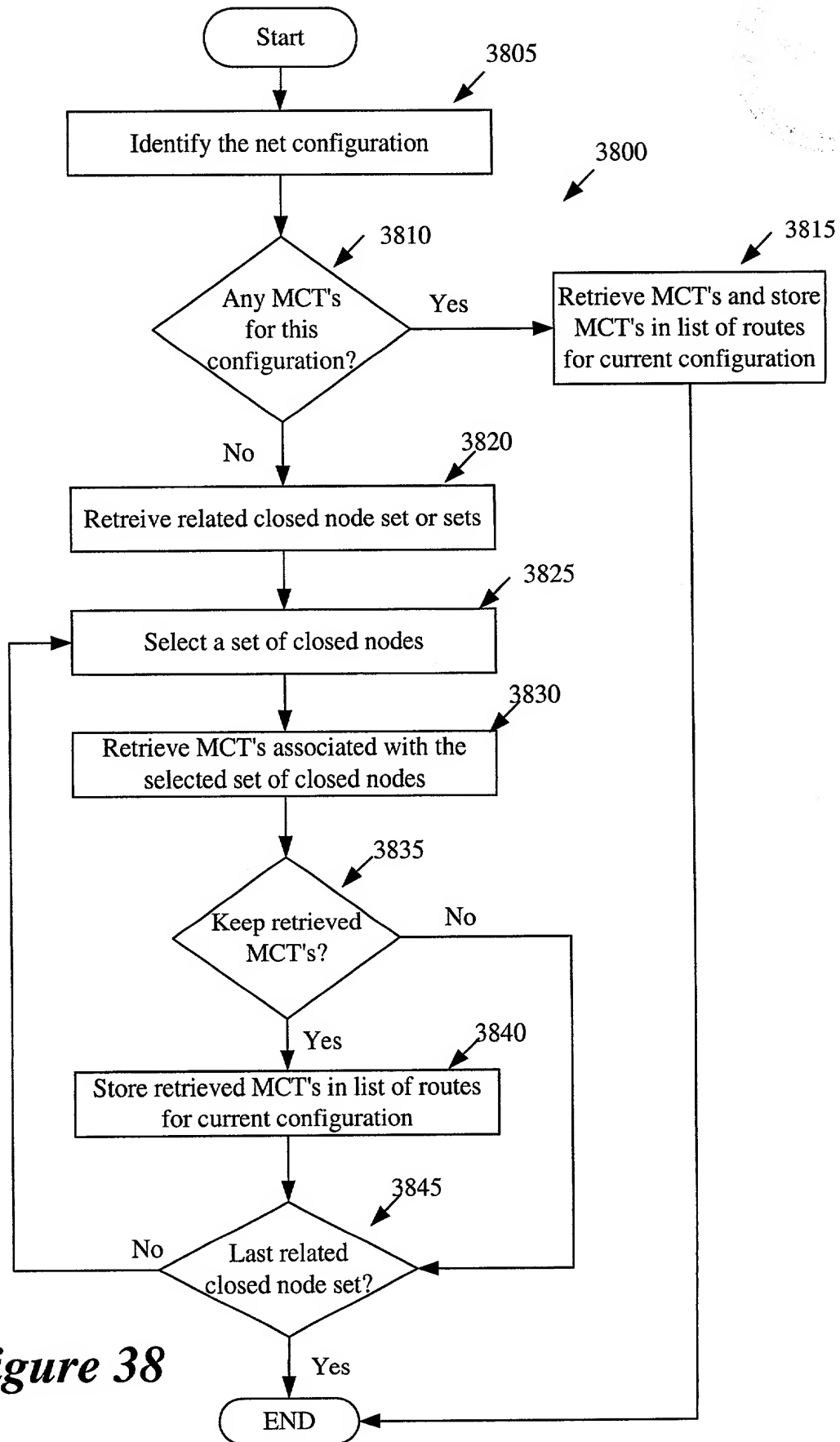




**Figure 36**

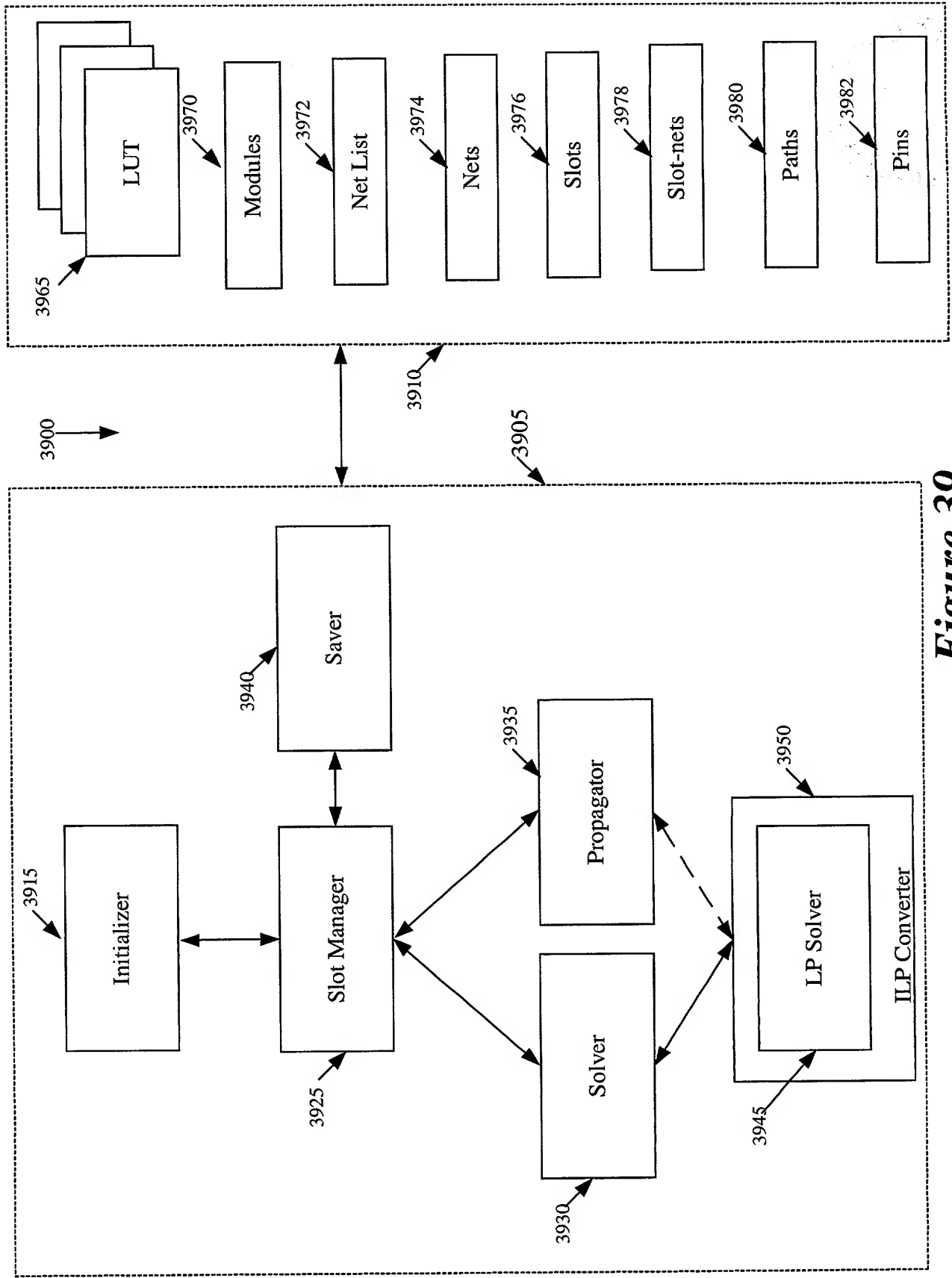


**Figure 37**



**Figure 38**

FIG. 39 is a block diagram of a system 3900 for solving a problem. The system 3900 includes an initializer 3915, a slot manager 3925, a saver 3940, a propagator 3935, a solver 3930, an LP solver 3945, and an ILP converter 3950. The initializer 3915 is connected to the slot manager 3925. The slot manager 3925 is connected to the saver 3940, the propagator 3935, and the solver 3930. The propagator 3935 is connected to the LP solver 3945. The solver 3930 is connected to the LP solver 3945. The LP solver 3945 is connected to the ILP converter 3950. The ILP converter 3950 is connected to the LP solver 3945. The system 3900 is connected to a set of data 3965, which includes a LUT 3970, modules 3972, a net list 3974, nets 3976, slots 3978, slot-nets 3980, paths 3982, and pins 3982.



**Figure 39**





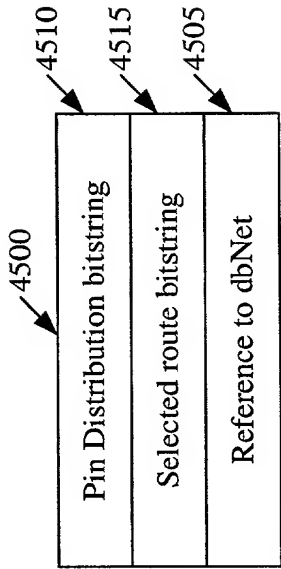


Figure 45

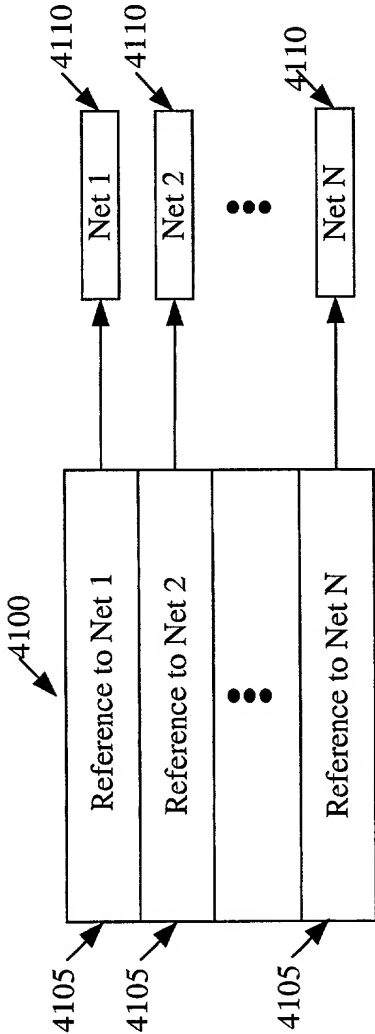


Figure 41

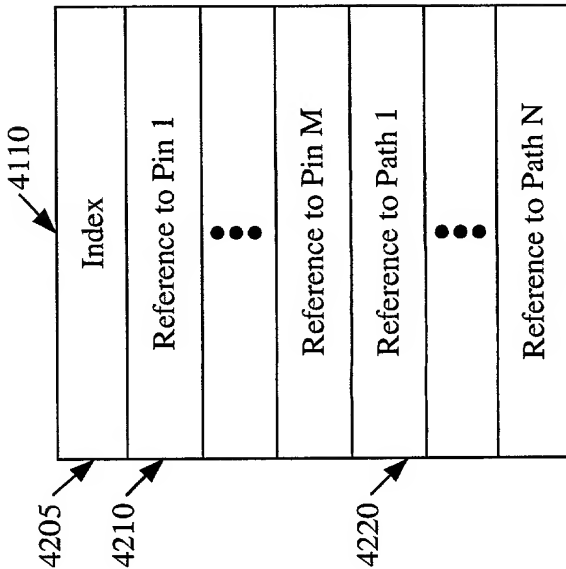


Figure 42

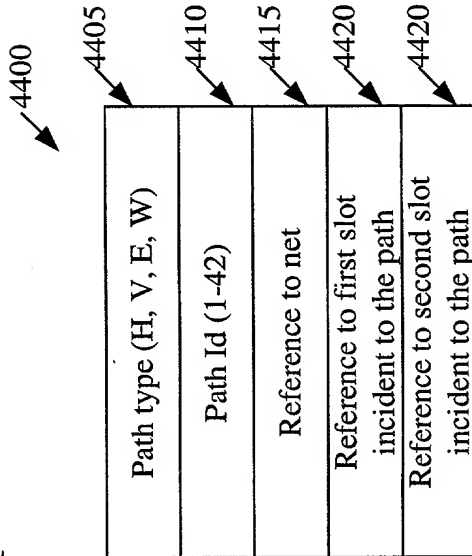


Figure 44

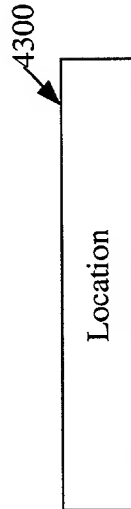


Figure 43

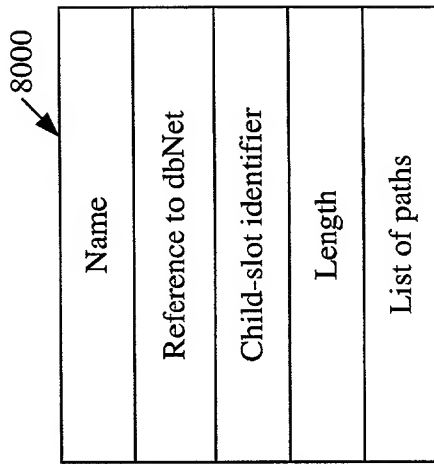
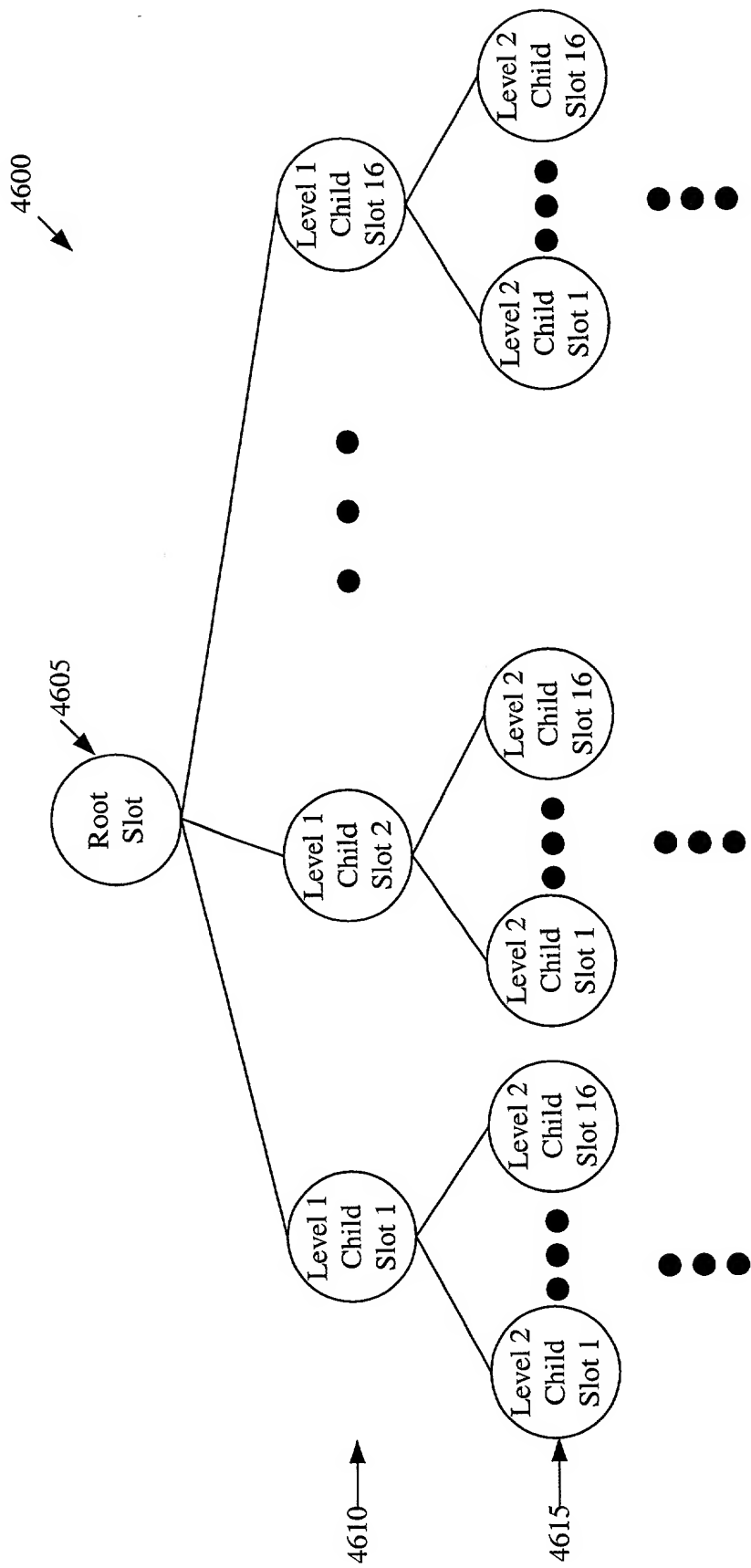


Figure 80



**Figure 46**

FIG. 47 is a block diagram of a system 4700 for processing slot net data. The system 4700 includes a first input 4710, a second input 4715, a third input 4720, and a fourth input 4725. The first input 4710 is connected to a first output 4735. The second input 4715 is connected to a second output 4740. The third input 4720 is connected to a third output 4745. The fourth input 4725 is connected to a fourth output 4750. The system 4700 also includes a first output 4730, a second output 4740, a third output 4750, and a fourth output 4760. The first output 4730 is connected to a first input 4735. The second output 4740 is connected to a second input 4740. The third output 4750 is connected to a third input 4745. The fourth output 4760 is connected to a fourth input 4750.

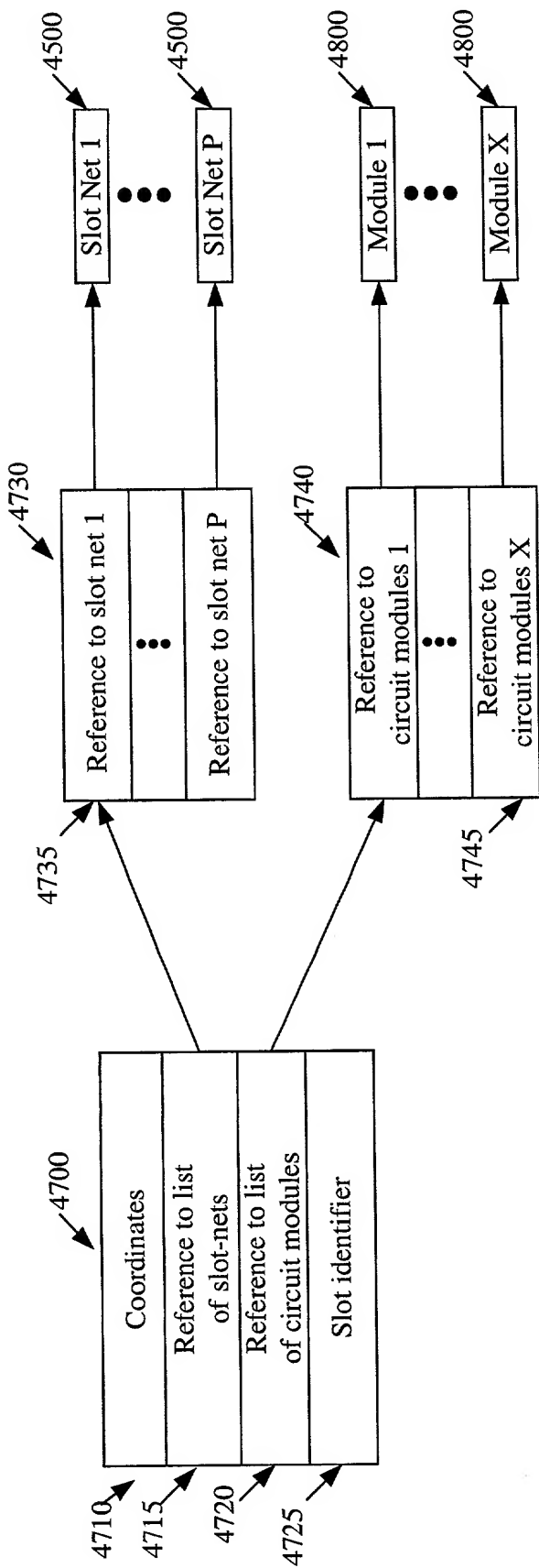


Figure 47

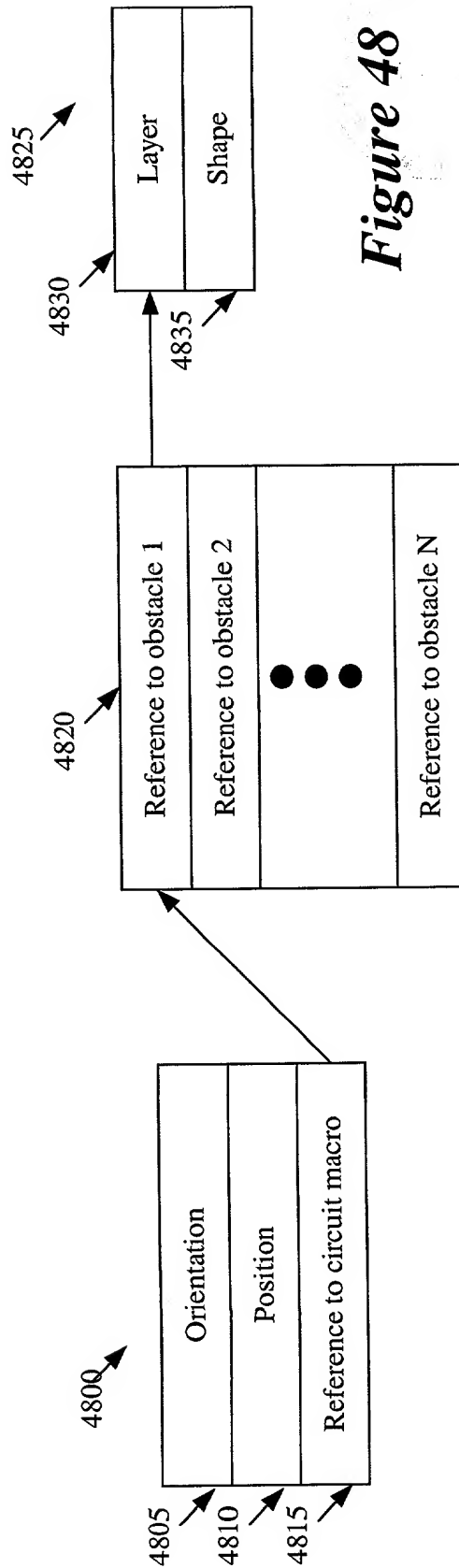
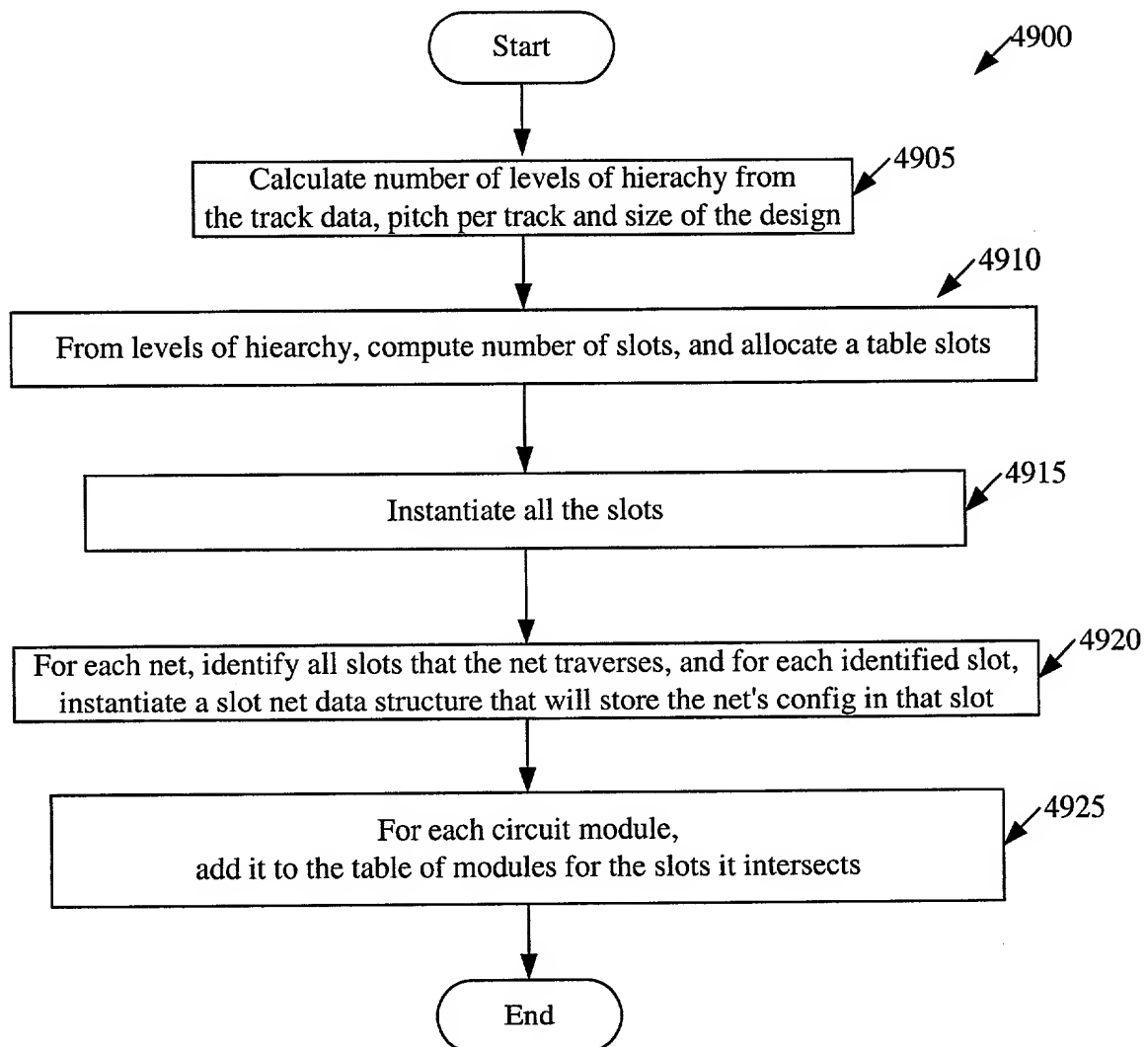
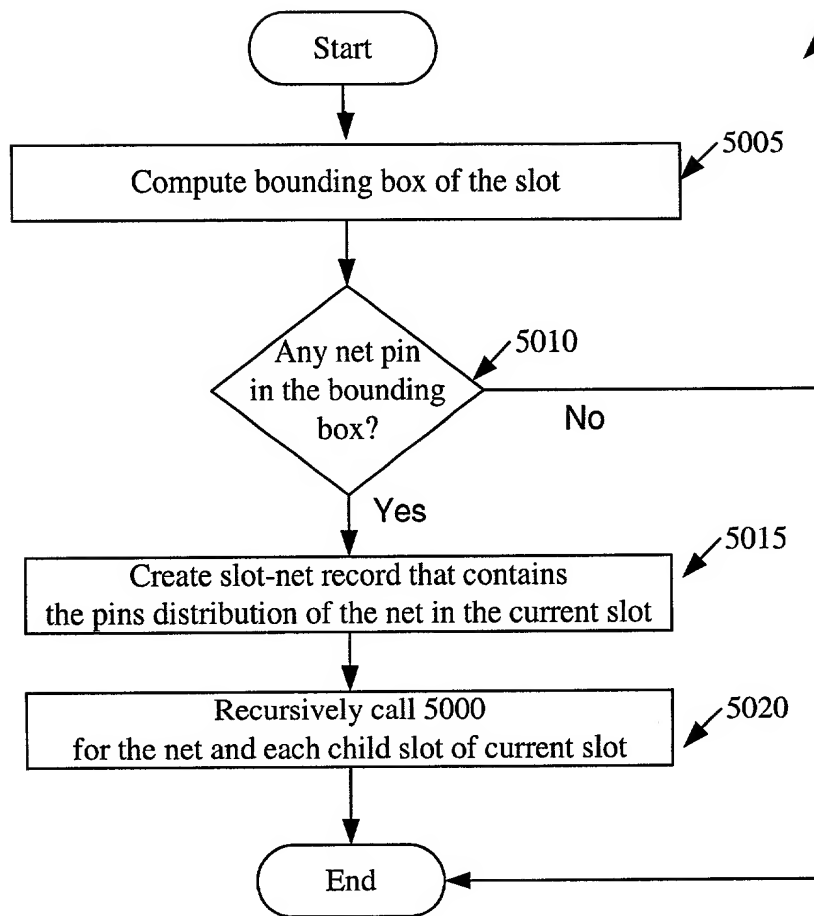


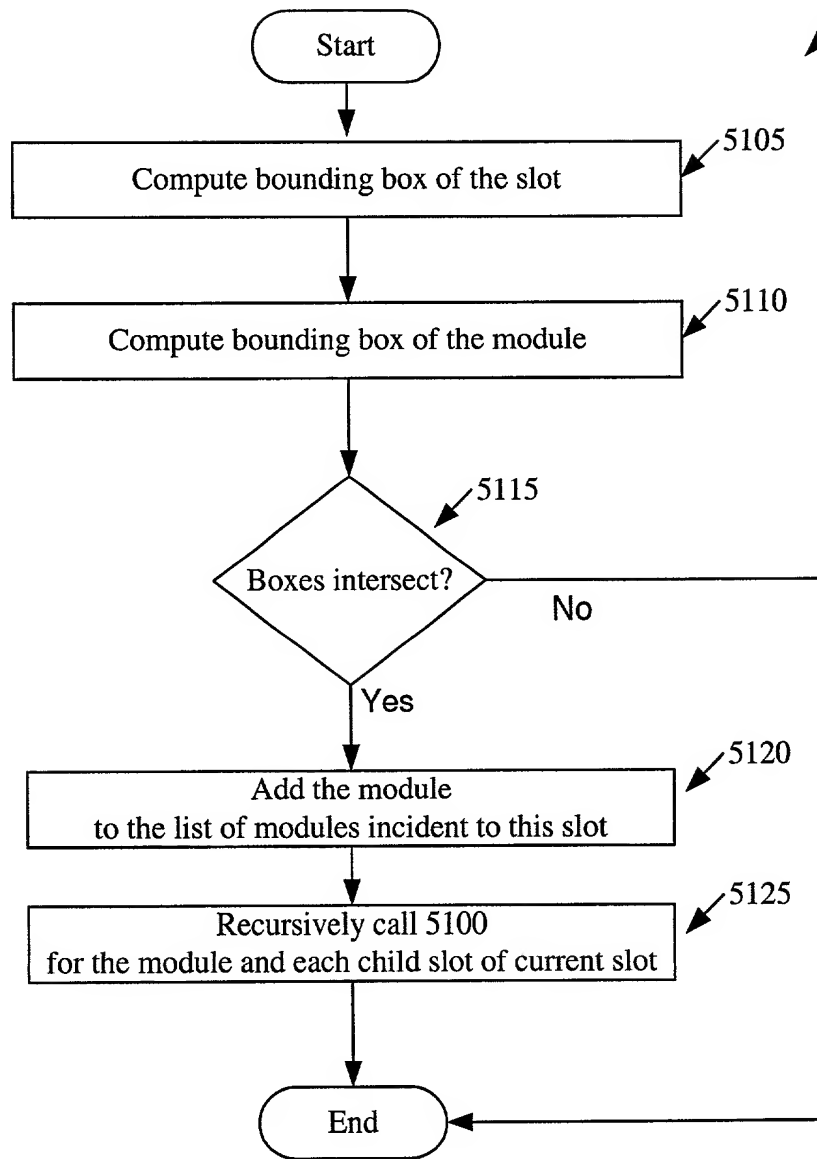
Figure 48



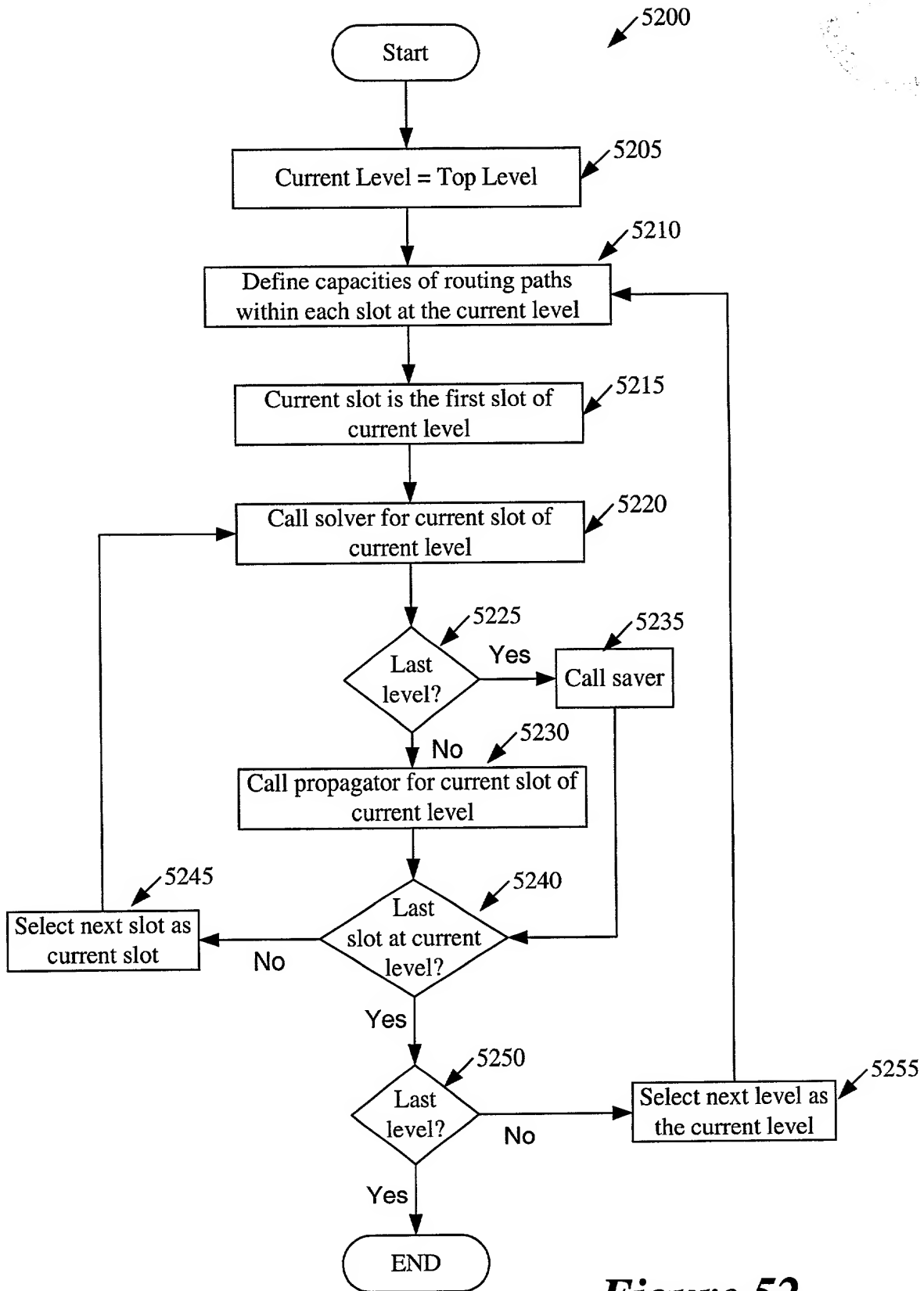
**Figure 49**



***Figure 50***

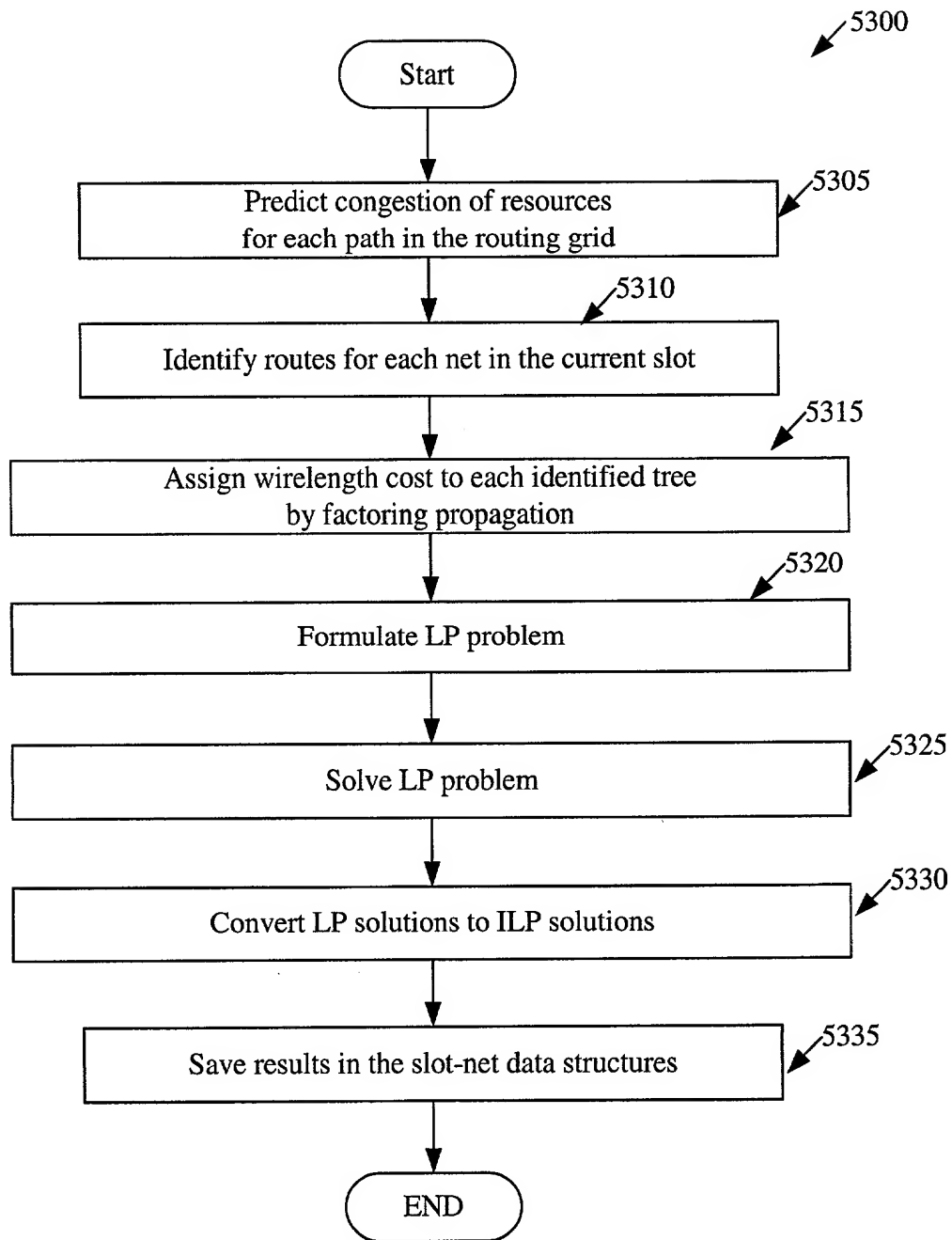


**Figure 51**

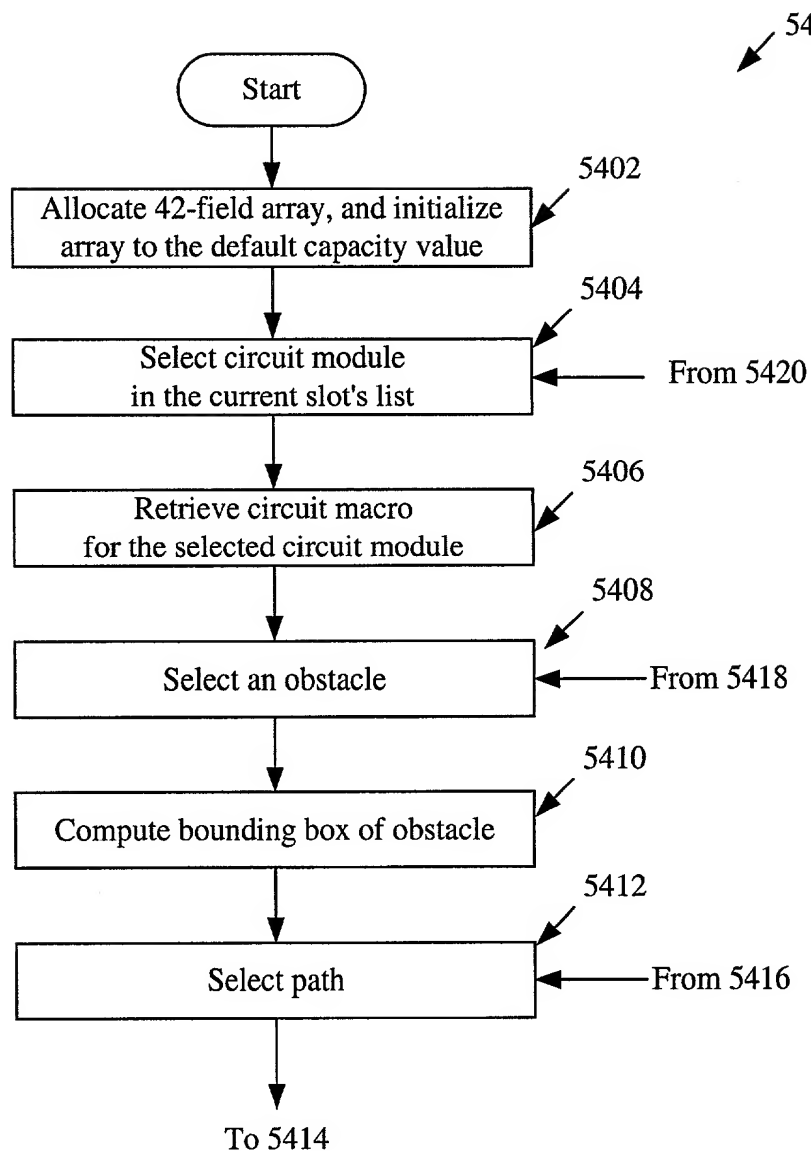


**Figure 52**



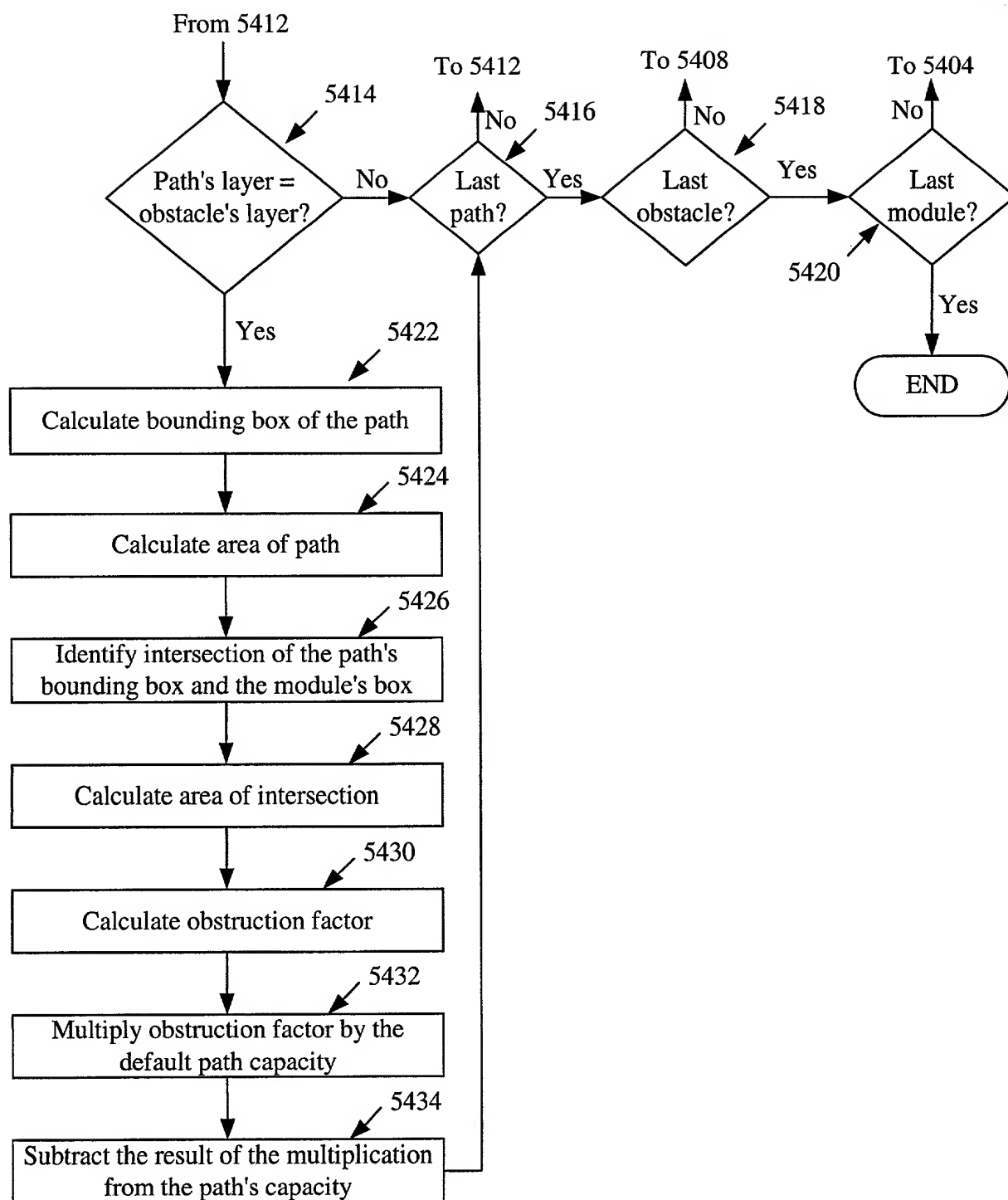


**Figure 53**

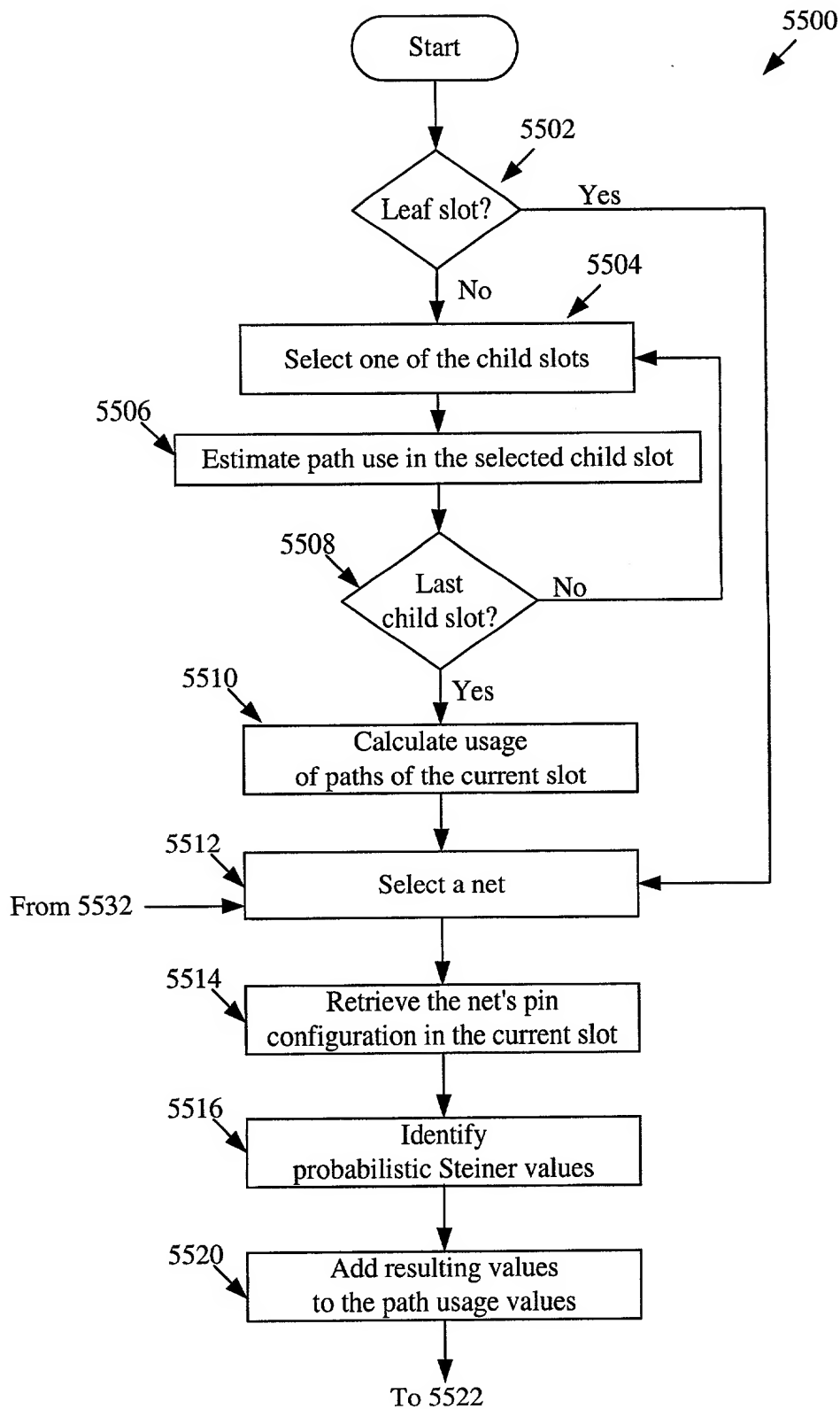


**Figure 54A**

**Figure 54:** Figure 54A  
Figure 54B

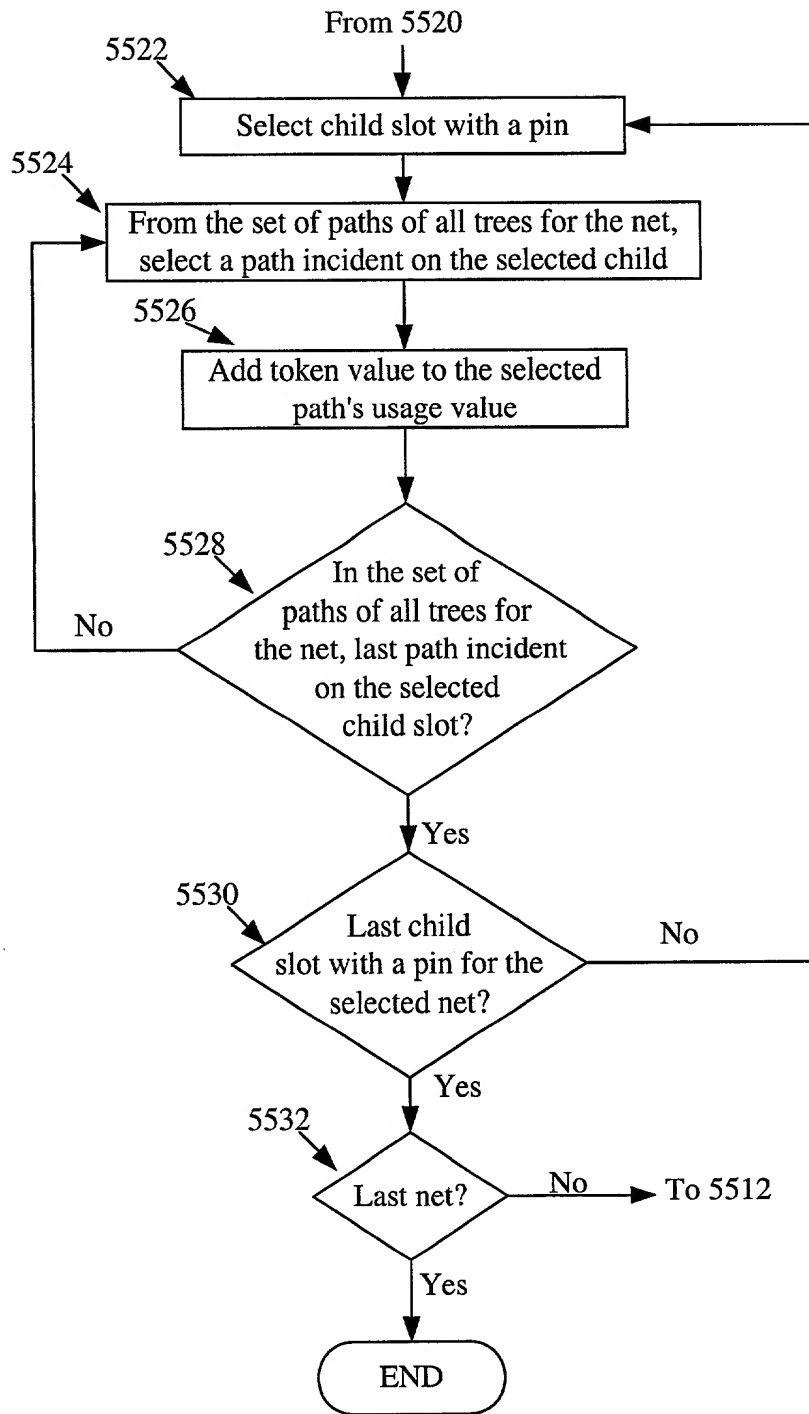


**Figure 54B**

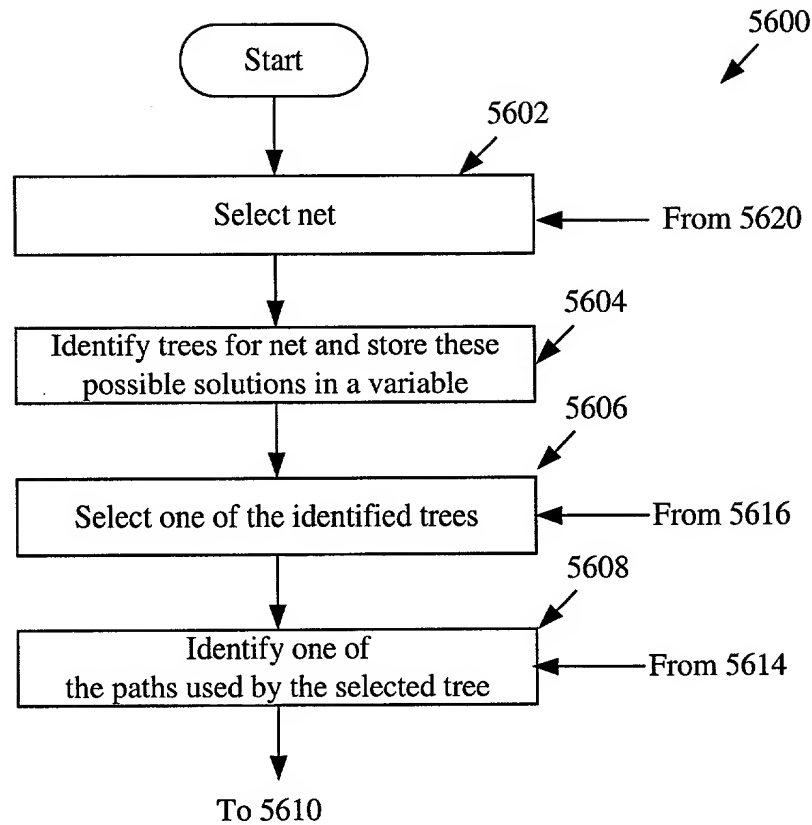


**Figure 55A**

**Figure 55: Figure 55B**

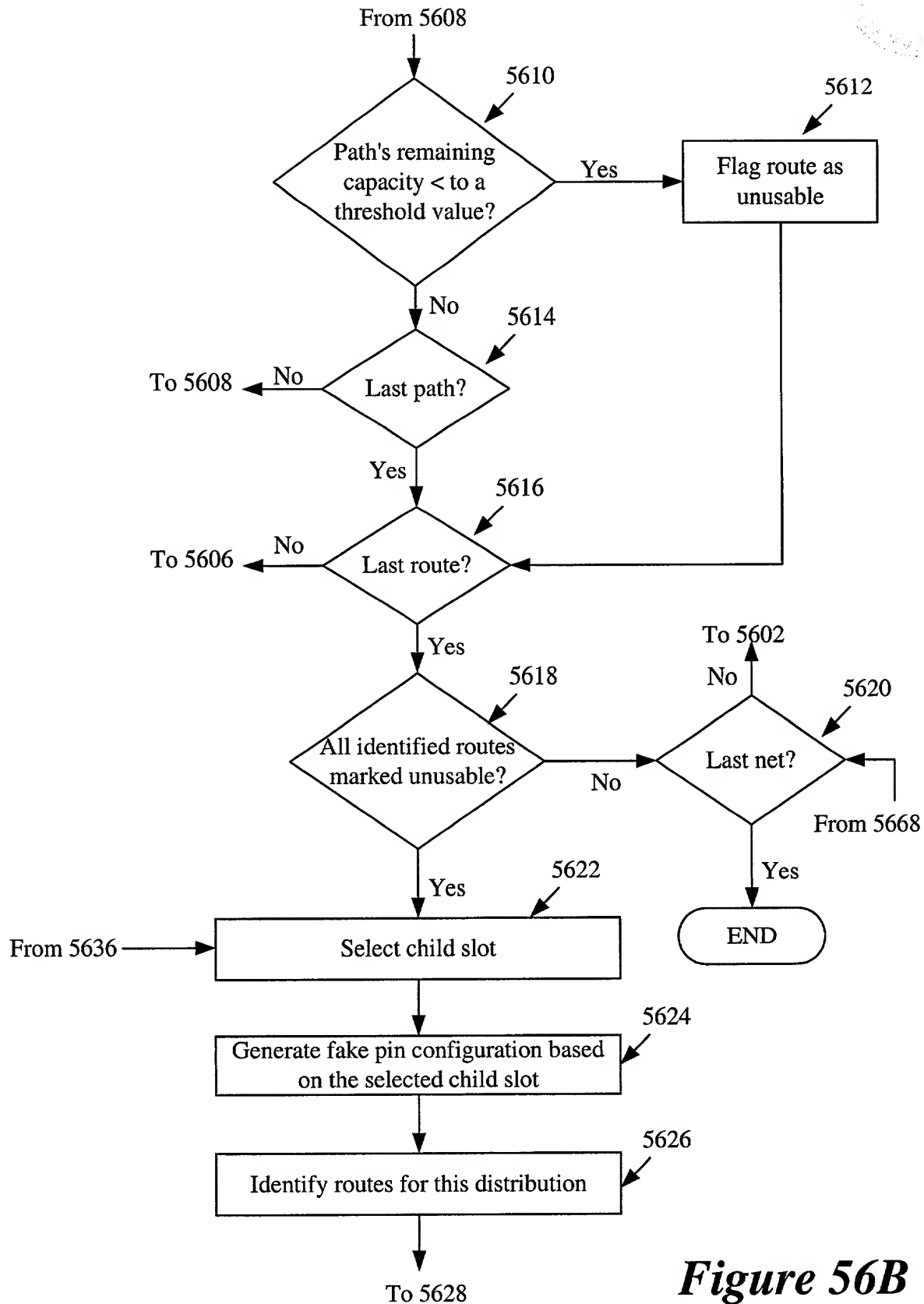


**Figure 55B**

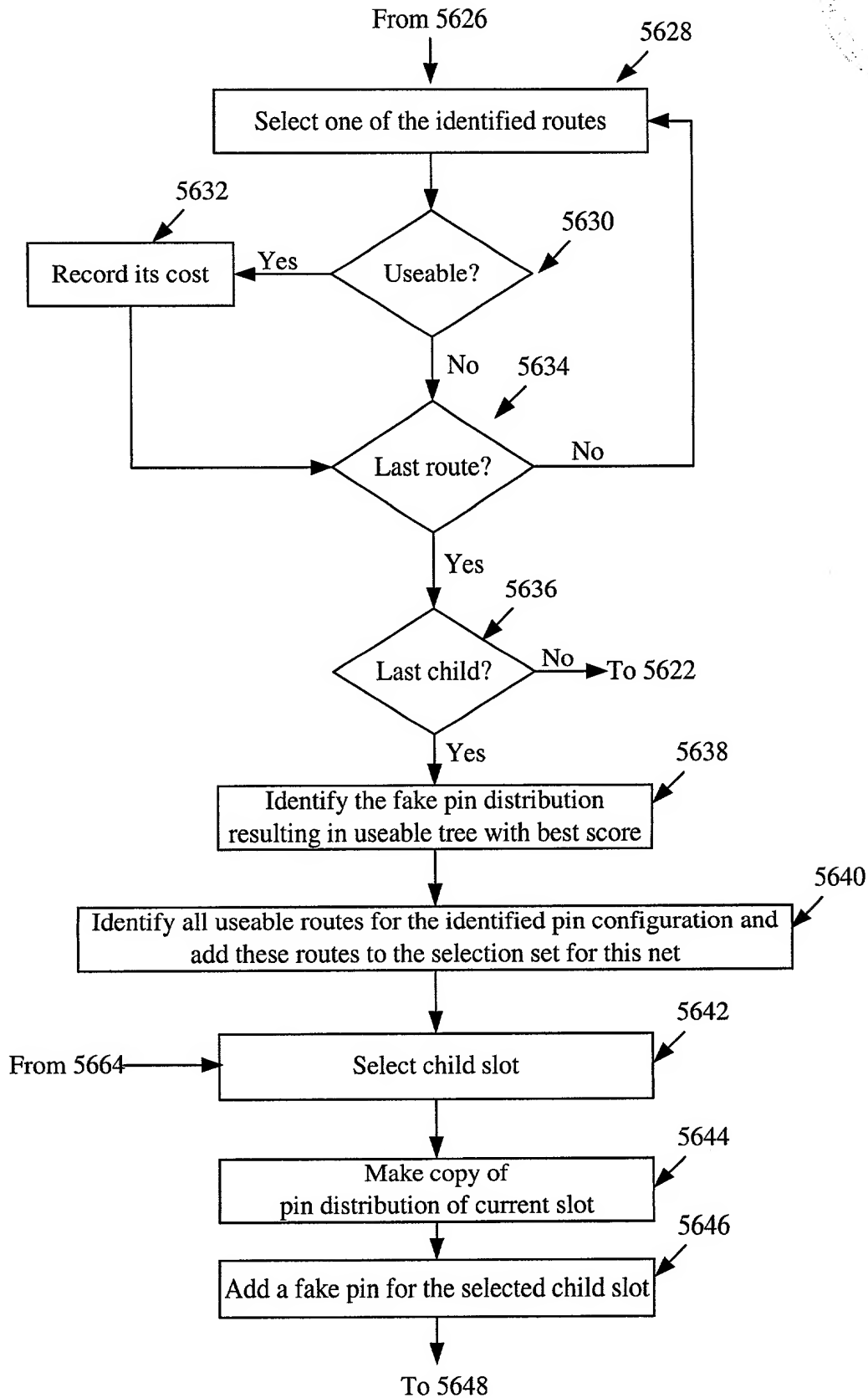


**Figure 56A**

**Figure 56:** Figure 56A  
Figure 56B  
Figure 56C  
Figure 56D

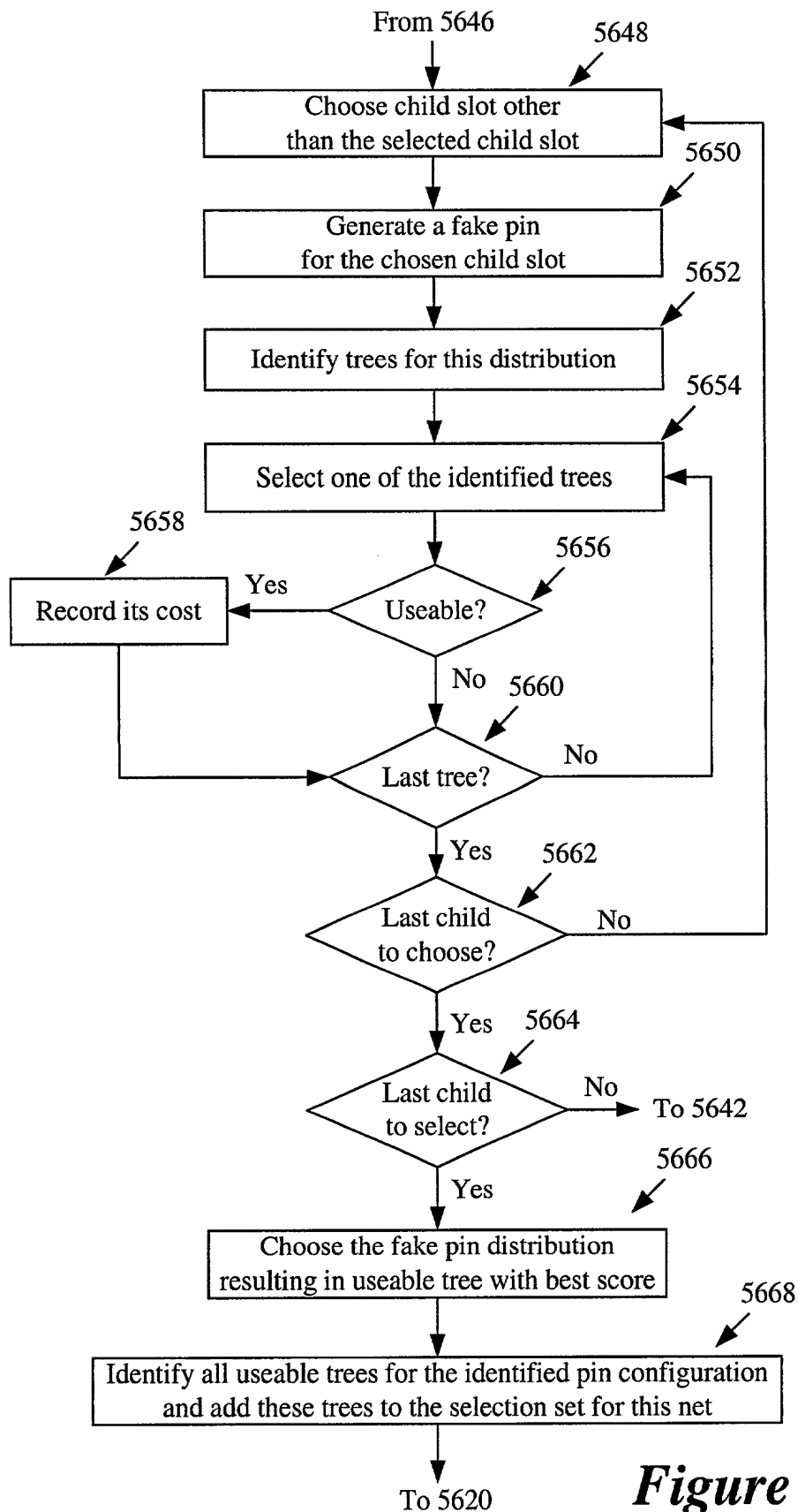


**Figure 56B**

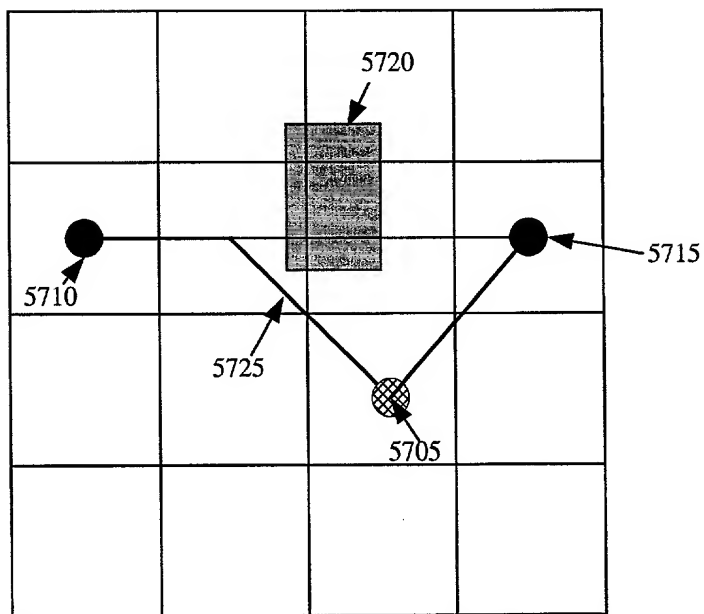


**Figure 56C**

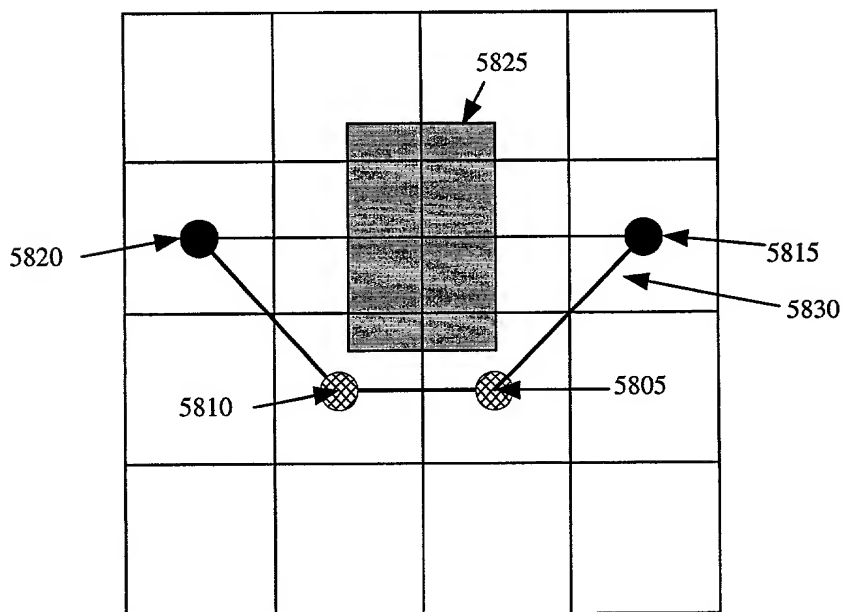




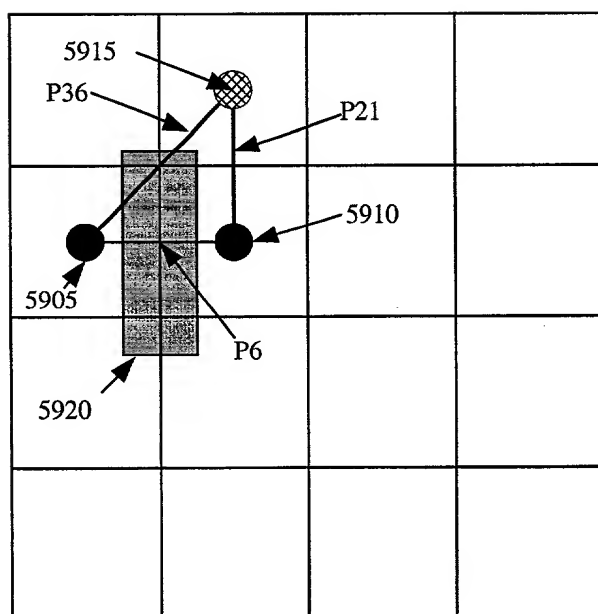
**Figure 56D**



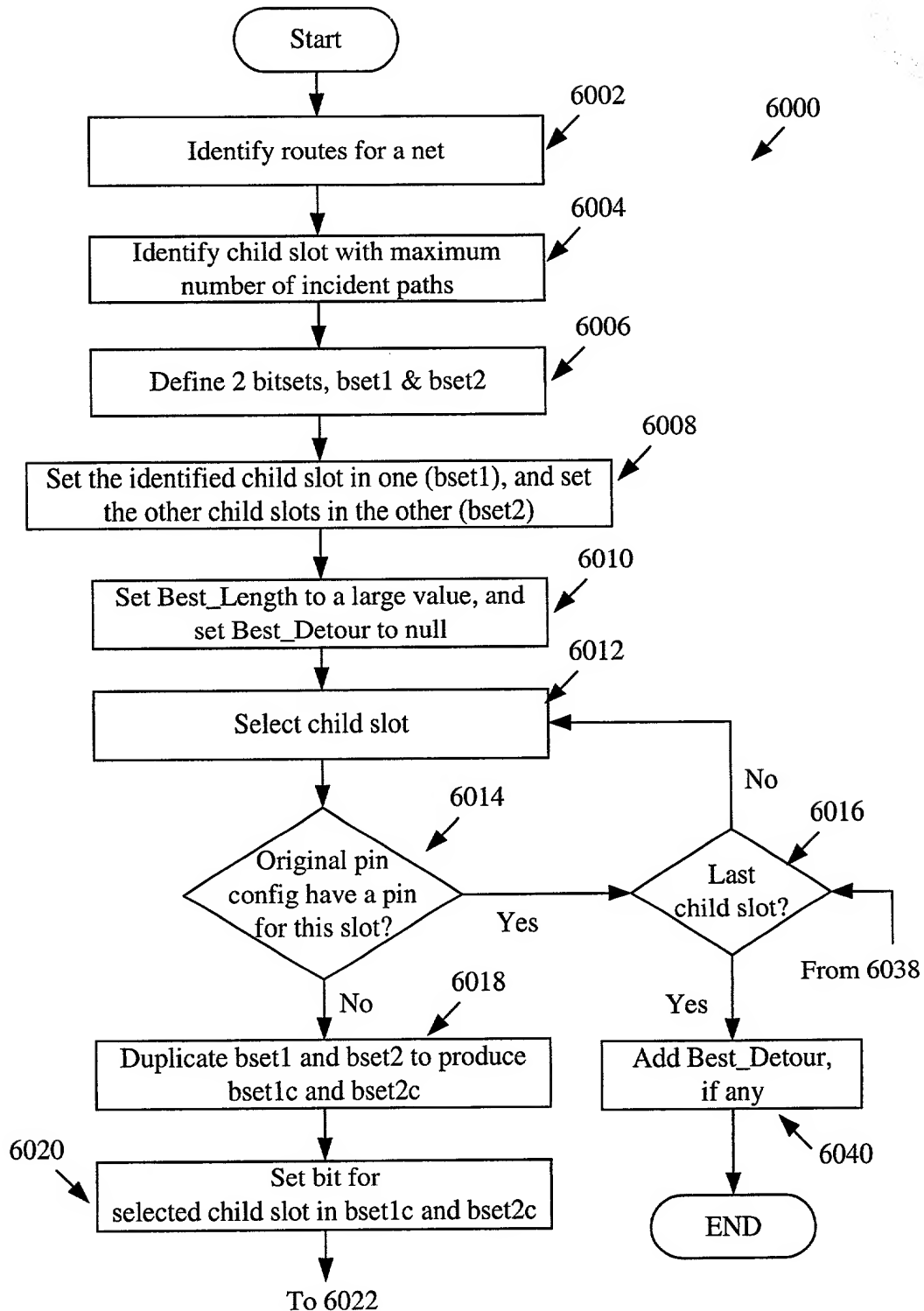
**Figure 57**



**Figure 58**

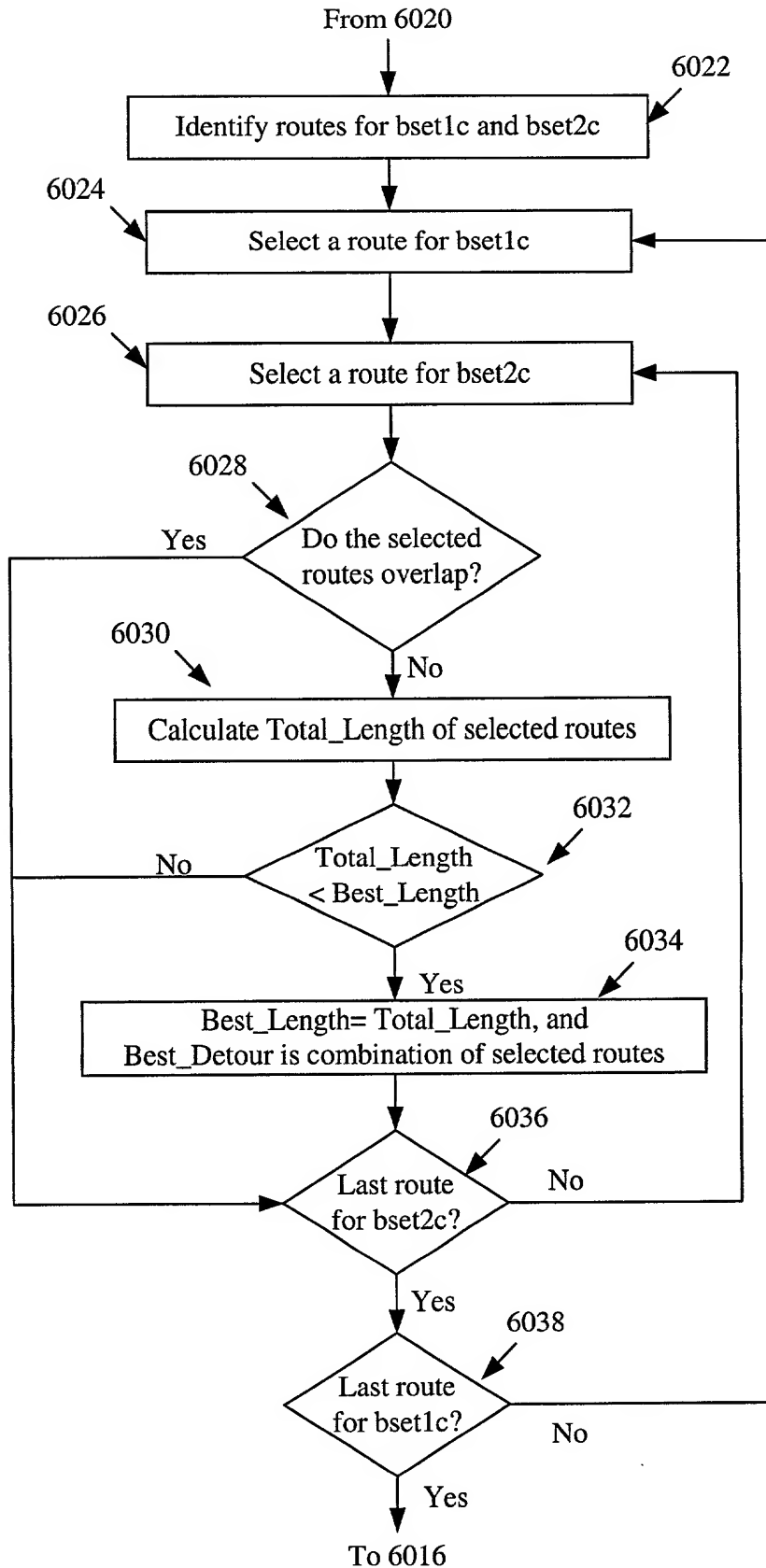


**Figure 59**



**Figure 60A**

**Figure 60:** Figure 60A  
Figure 60B



**Figure 60B**

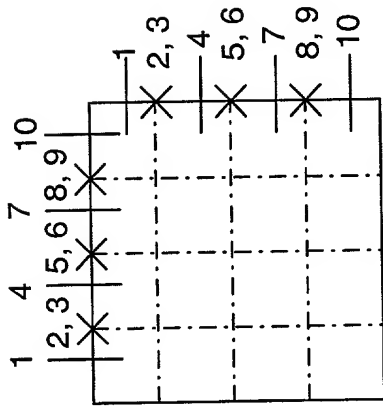


Figure 61

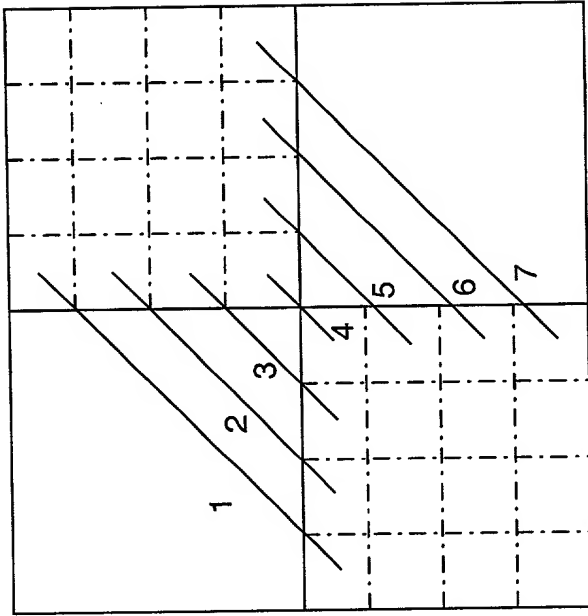


Figure 62

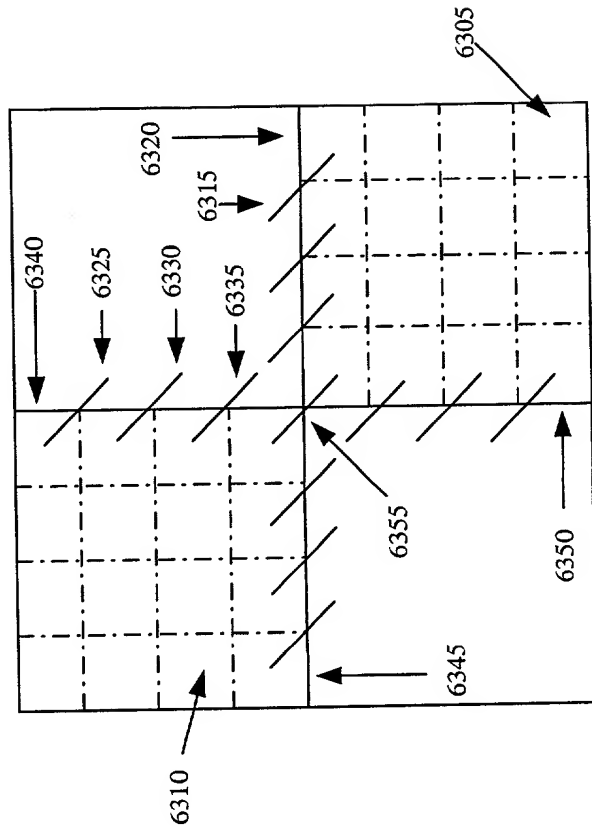
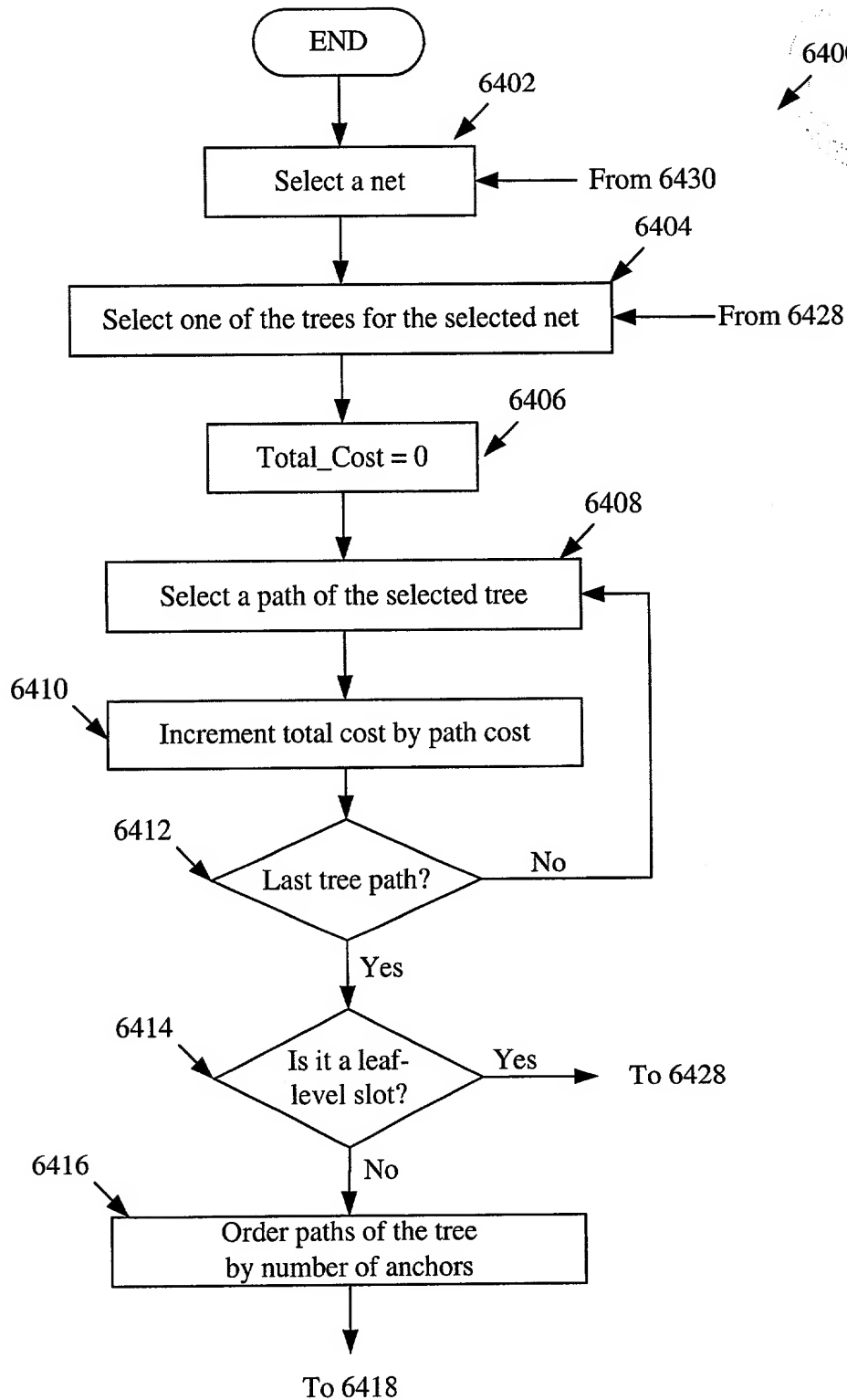
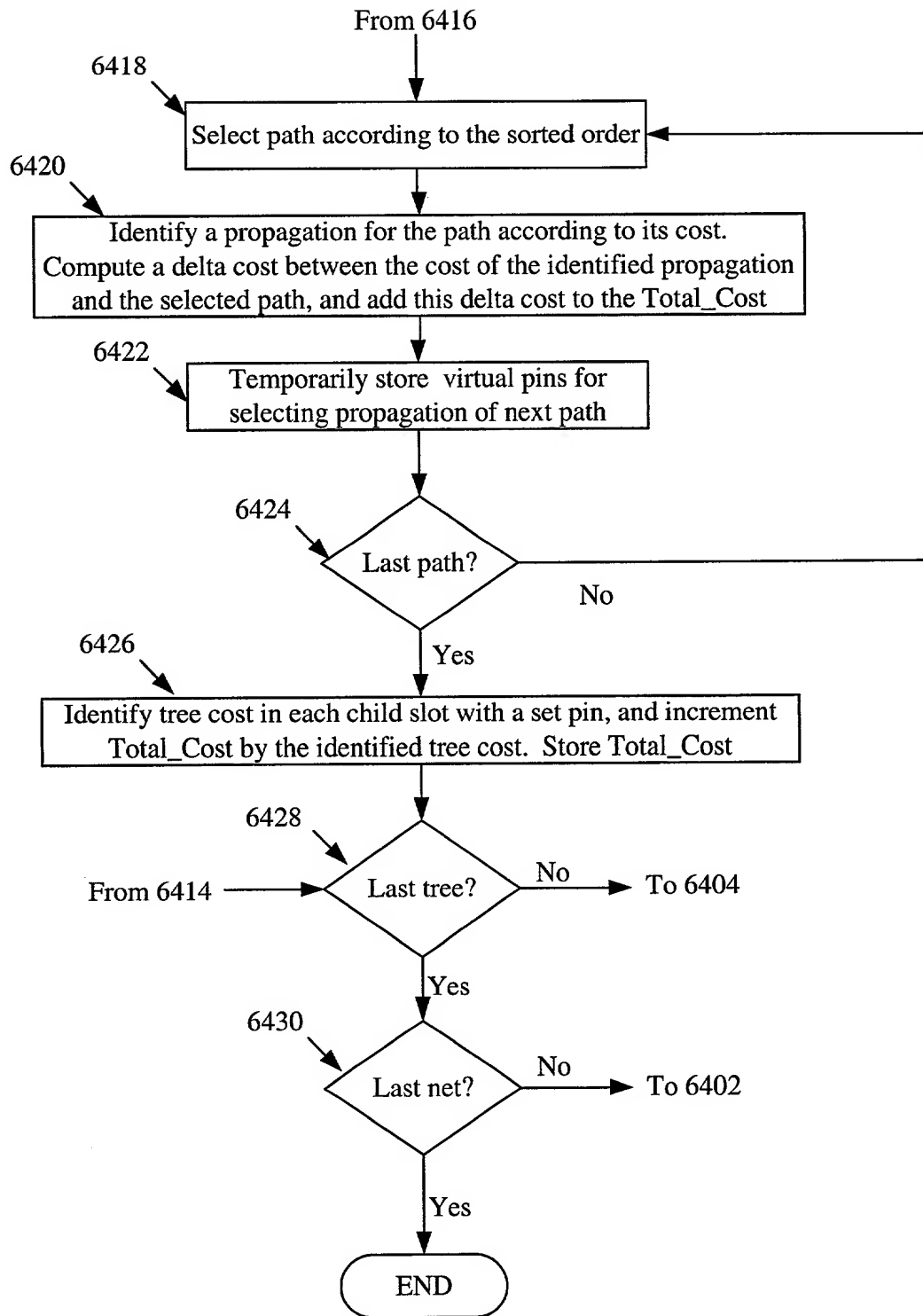


Figure 63



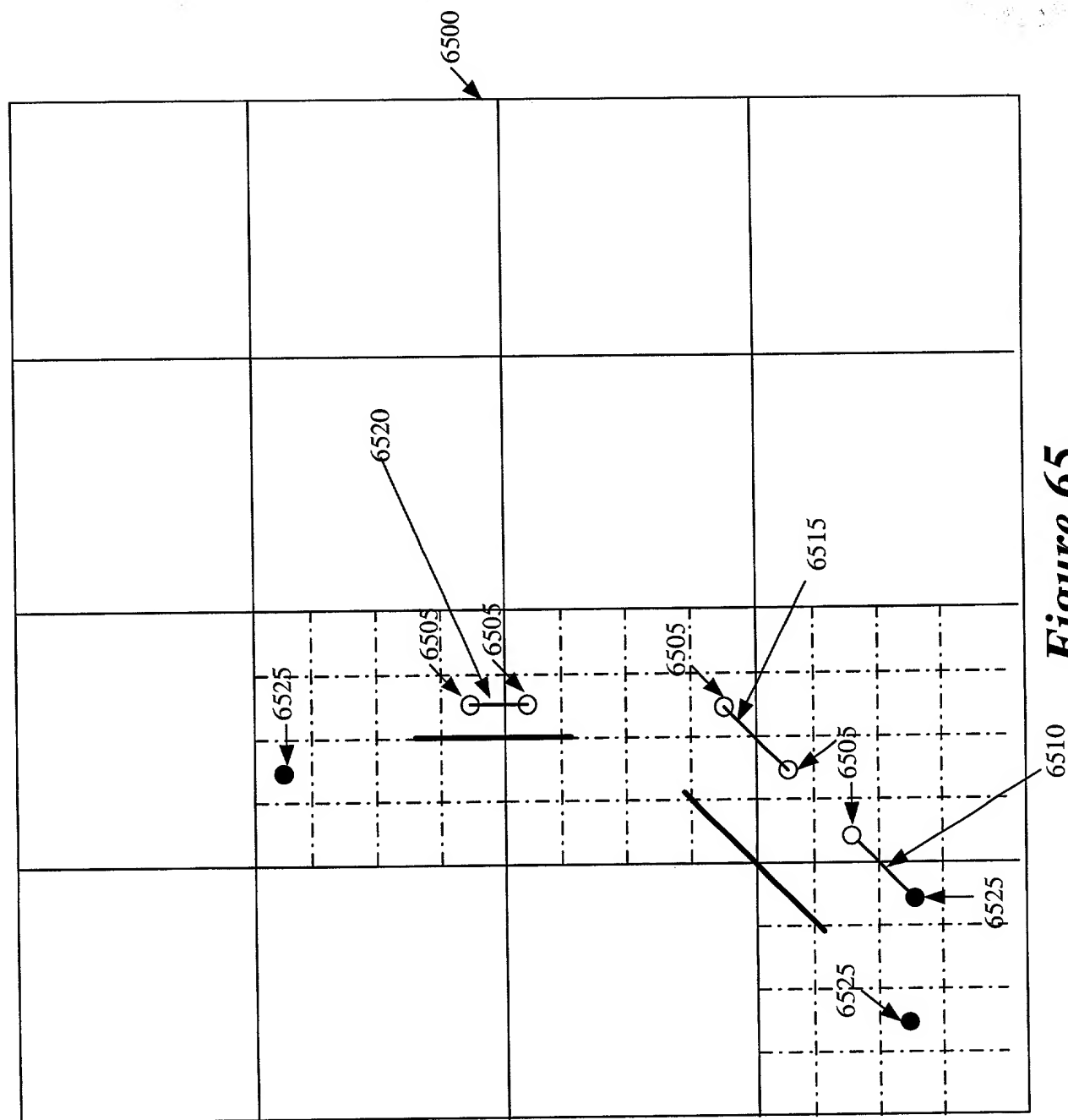
**Figure 64A**

**Figure 64:** Figure 64A  
Figure 64B

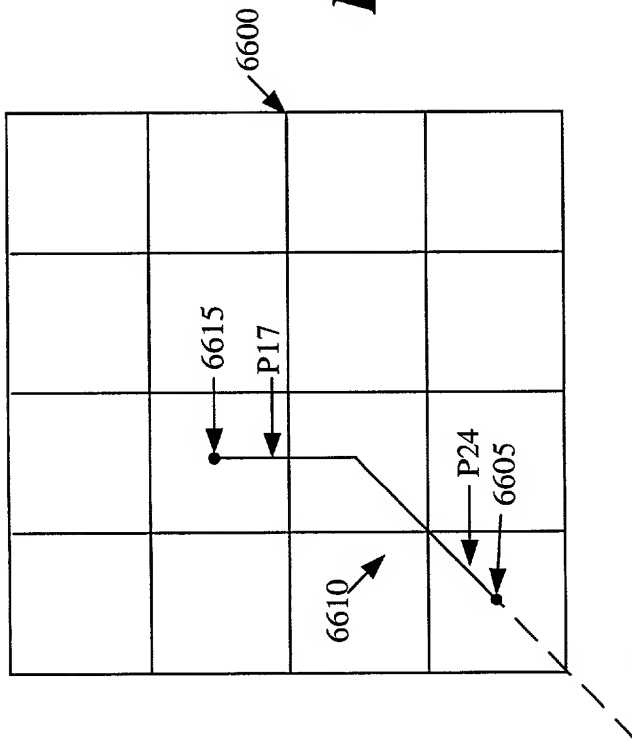


**Figure 64B**

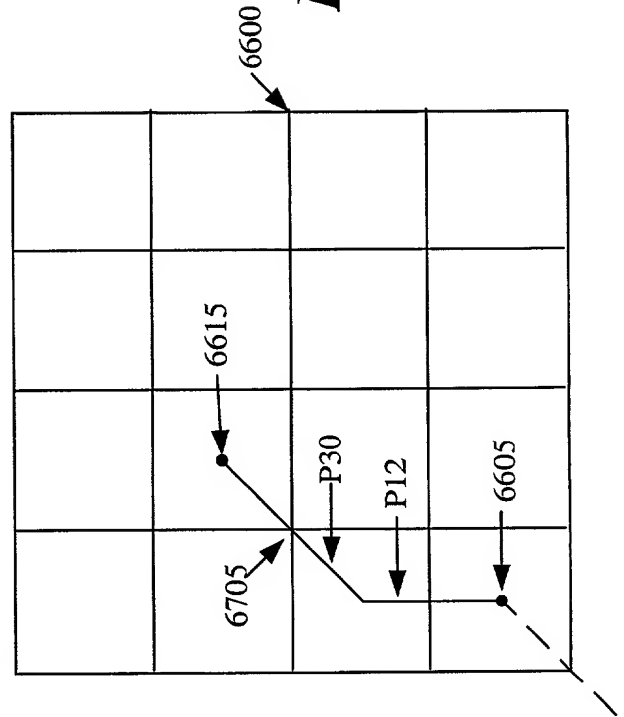


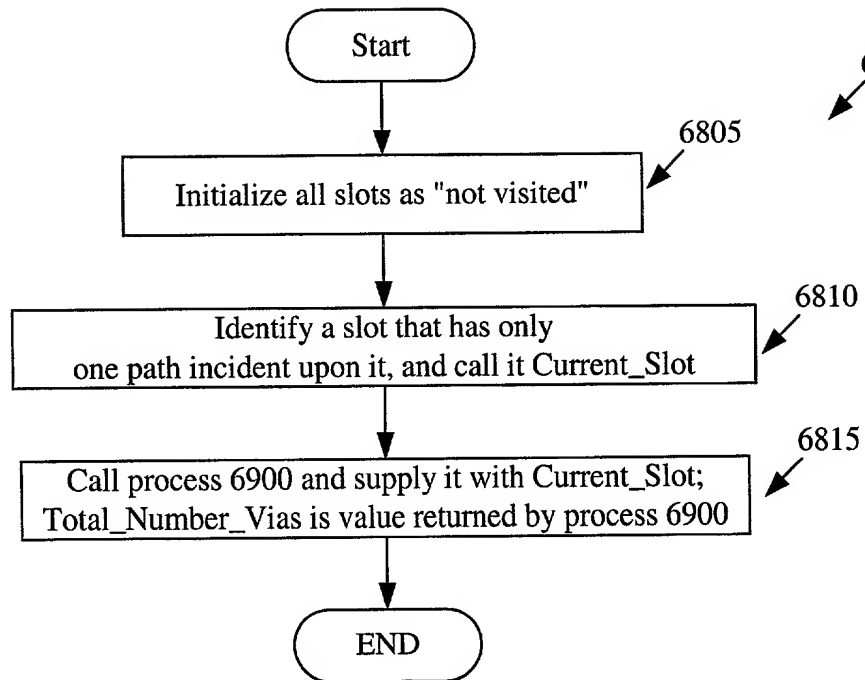


**Figure 66**

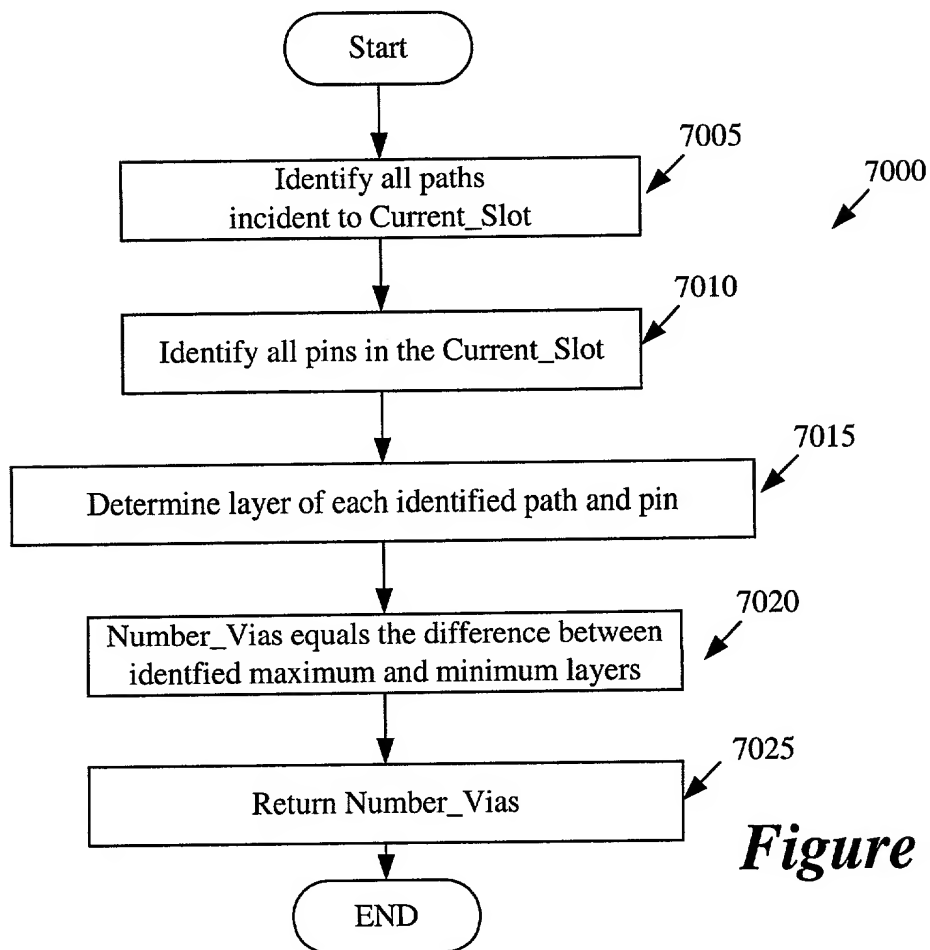


**Figure 67**

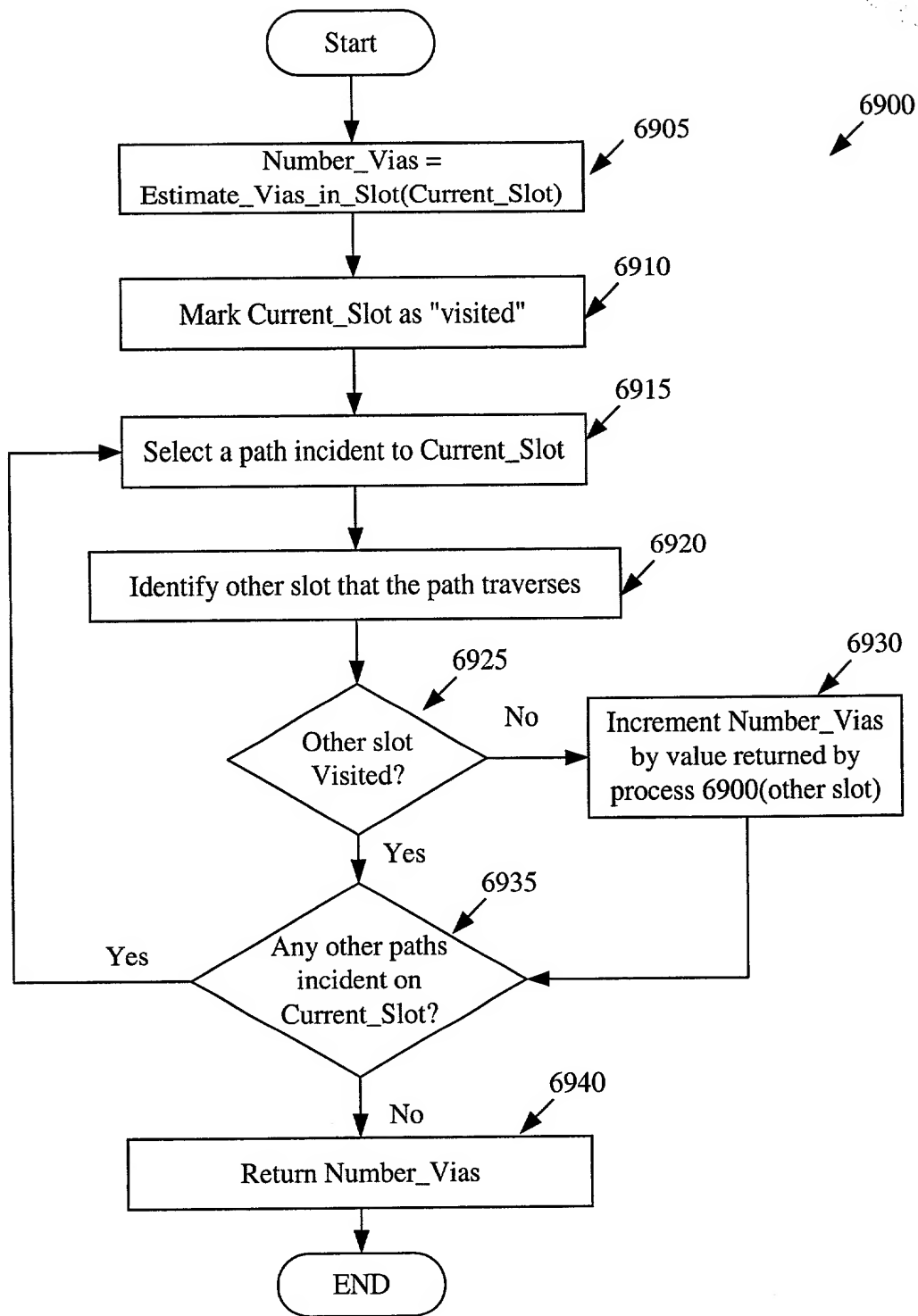




**Figure 68**



**Figure 70**



**Figure 69**

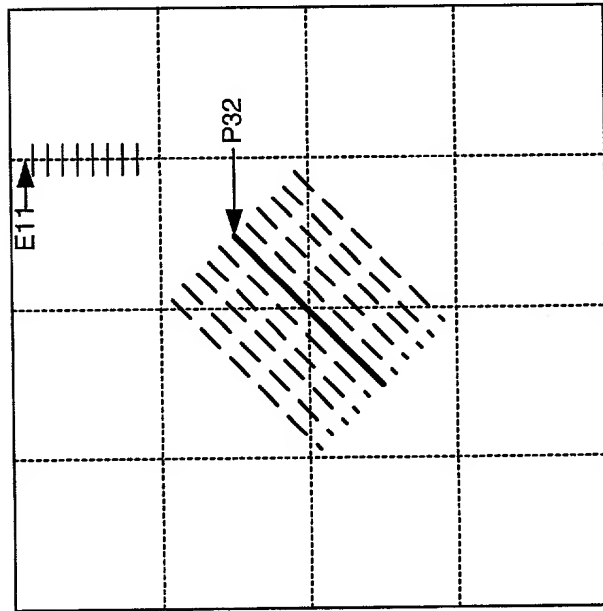


Figure 71

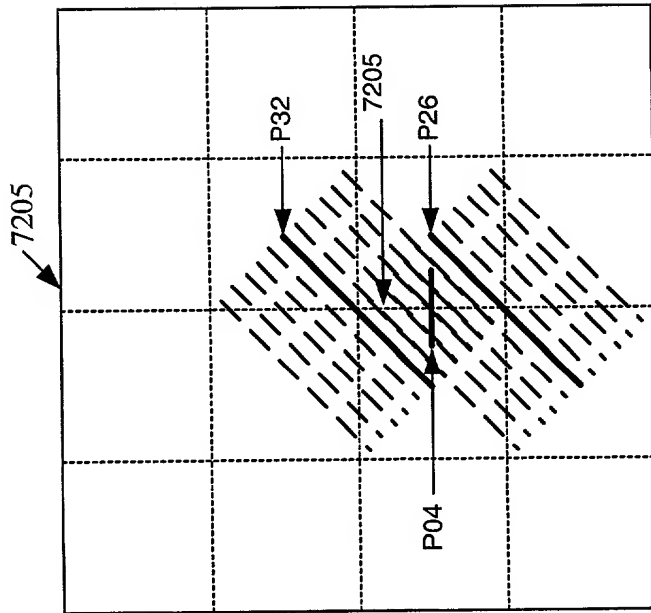
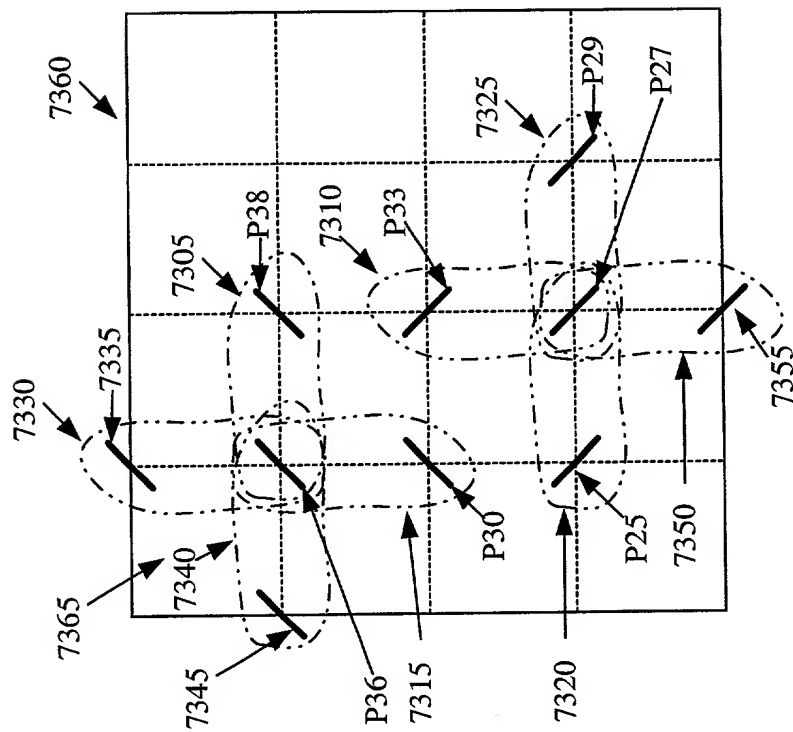
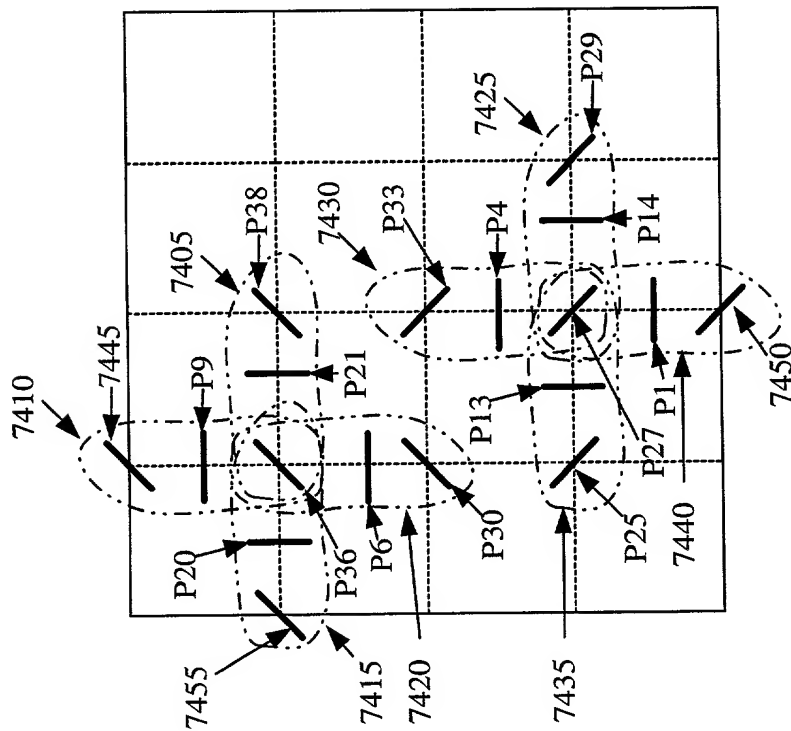


Figure 72

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044



**Figure 73**



**Figure 74**

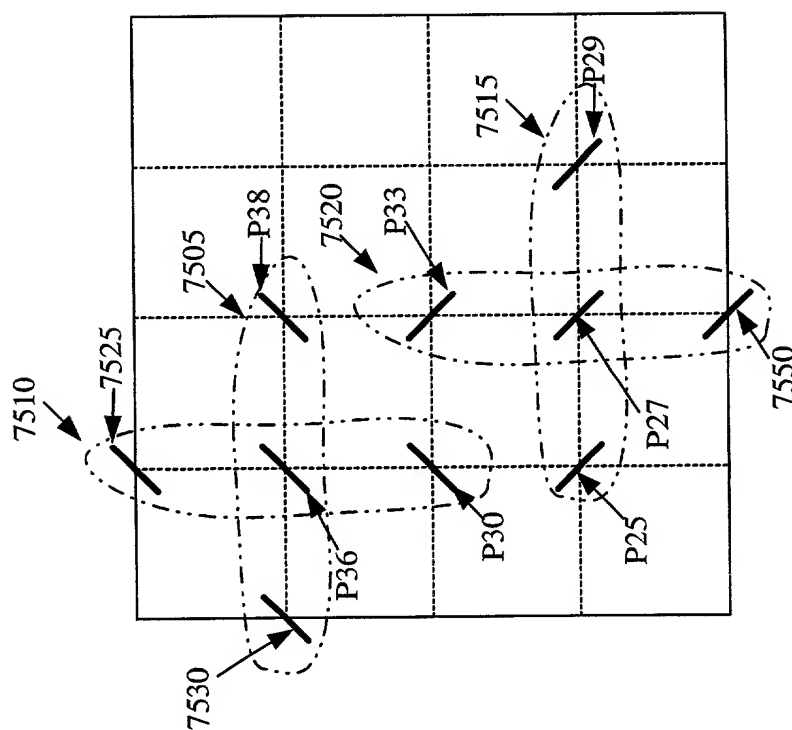
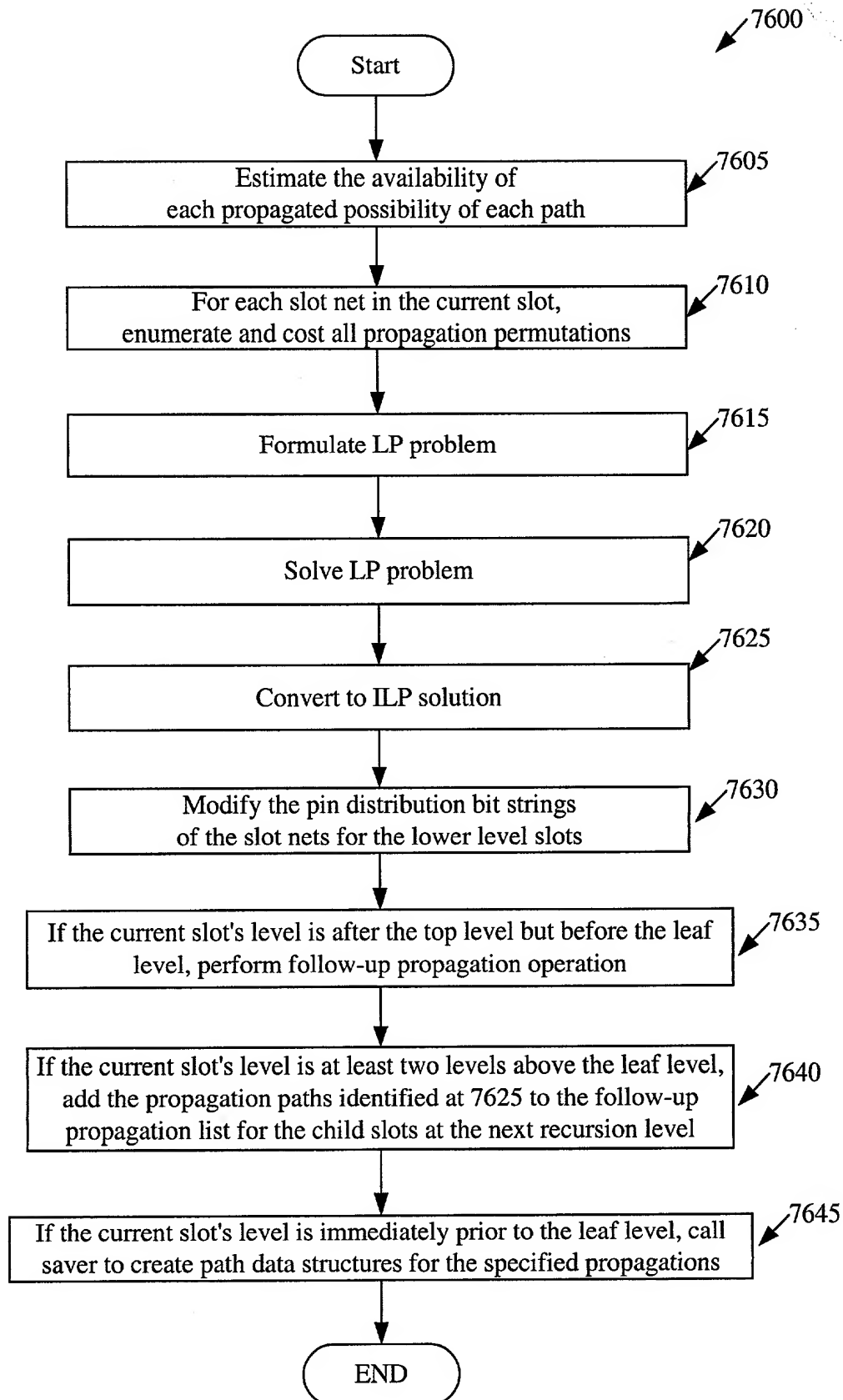
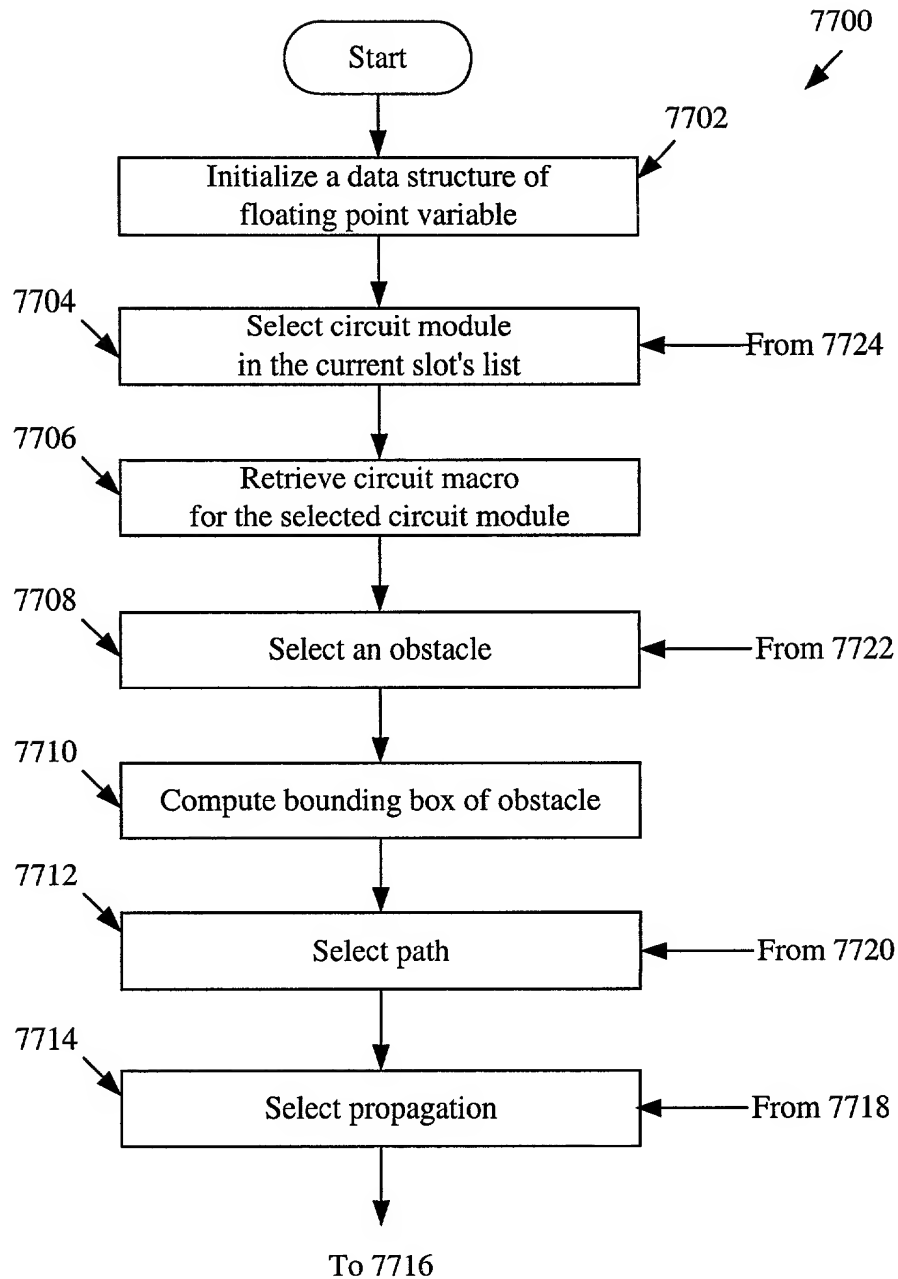


Figure 75



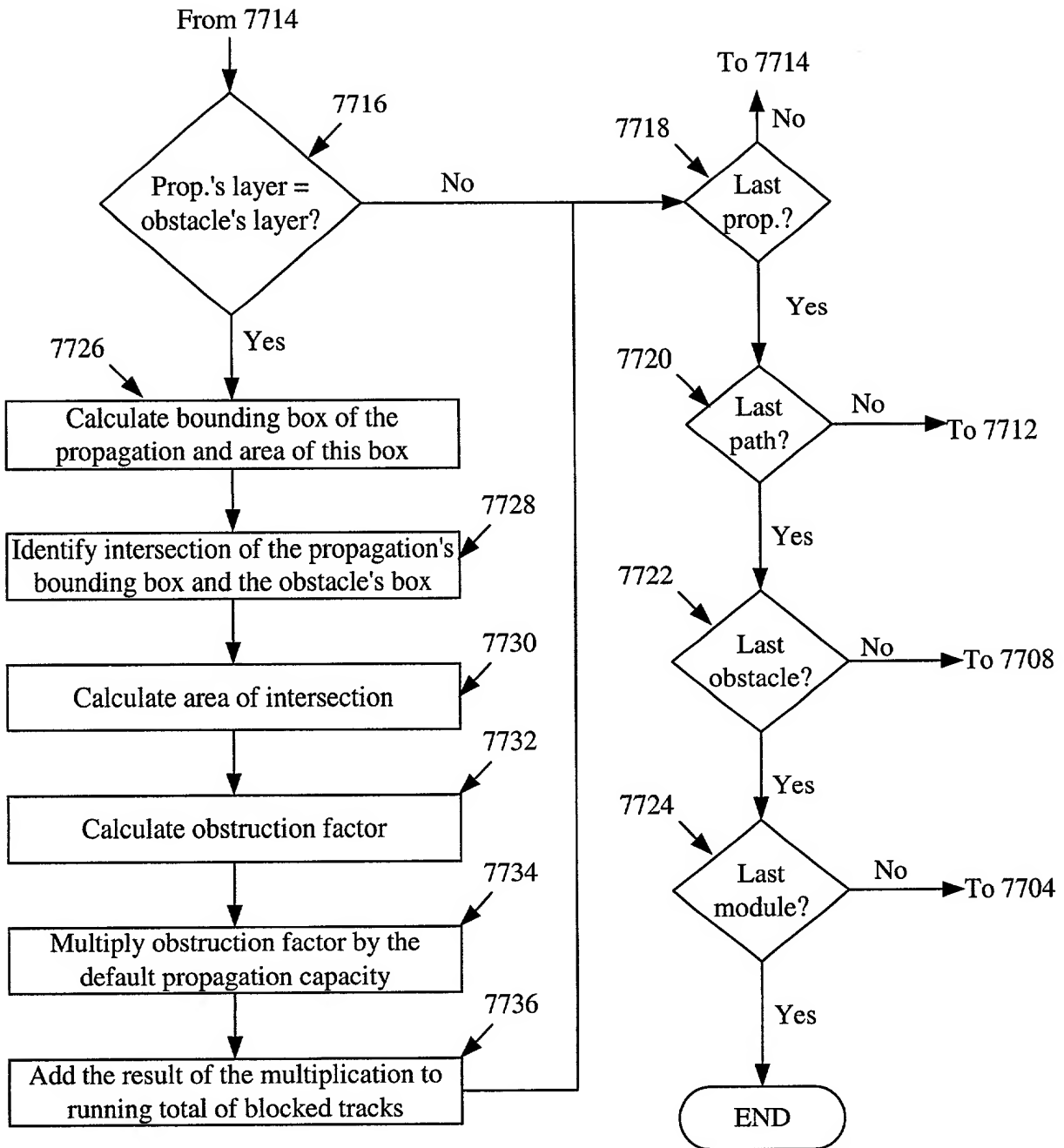
**Figure 76**



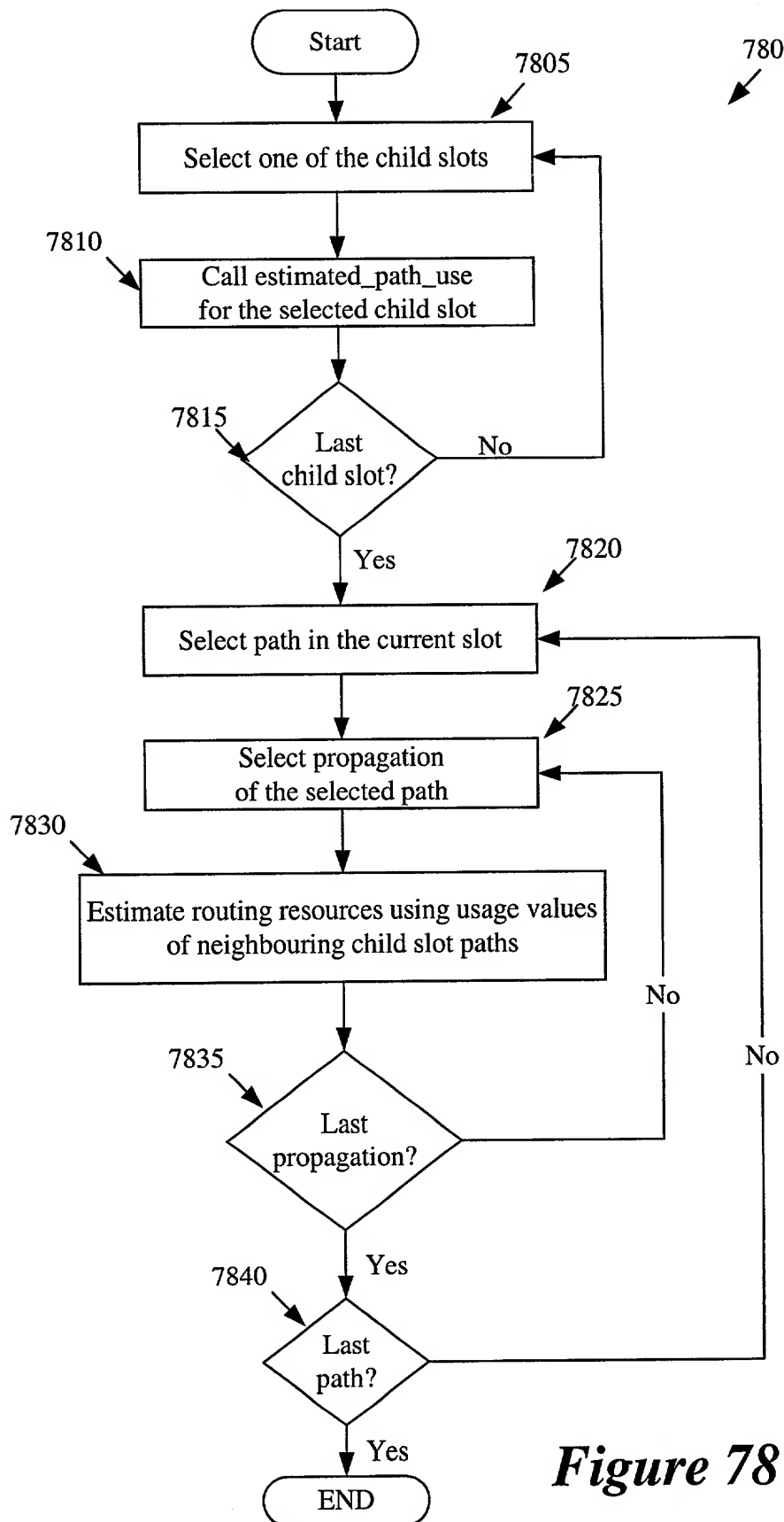


**Figure 77A**

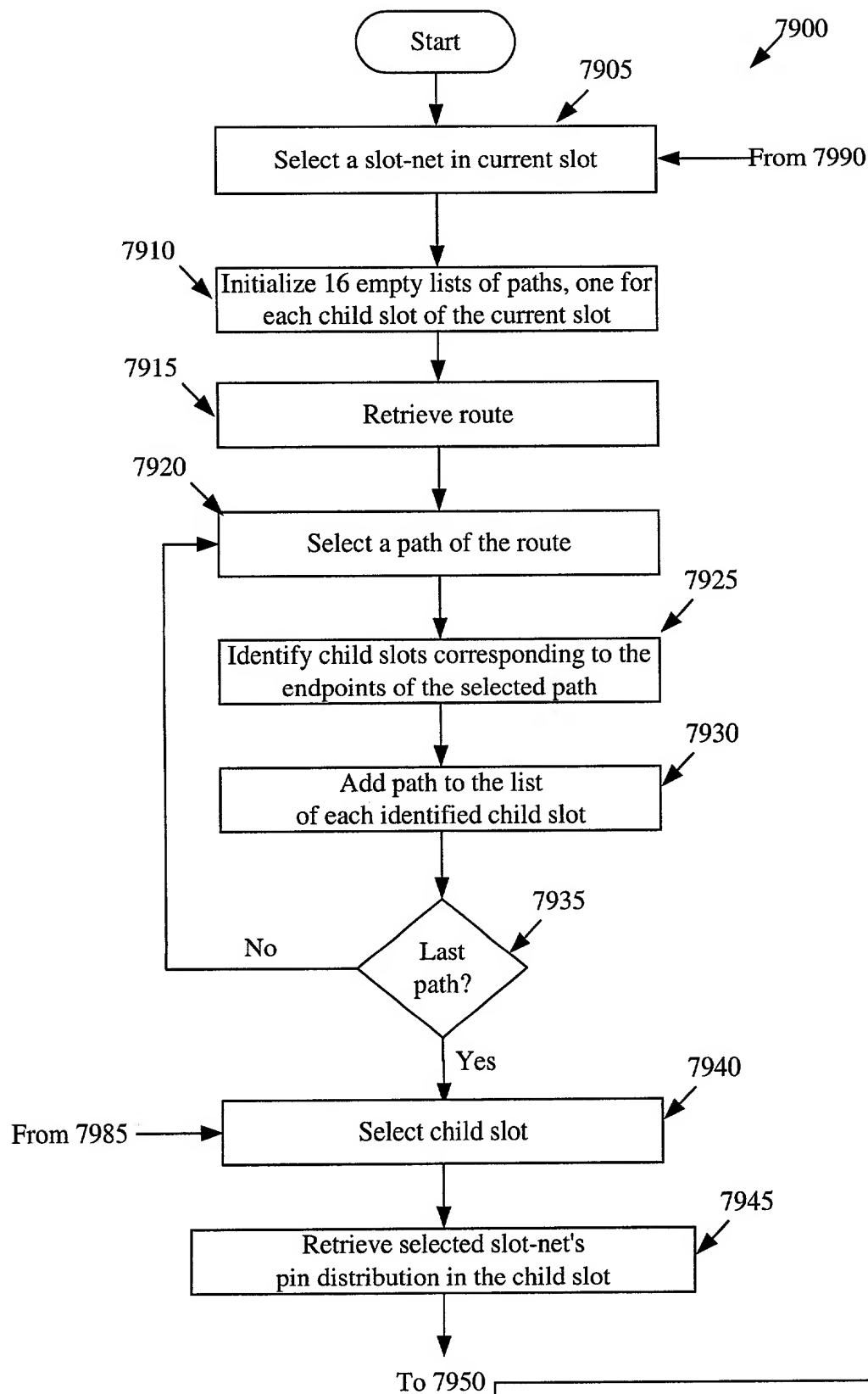
**Figure 77:  $\frac{\text{Figure 77A}}{\text{Figure 77B}}$**



**Figure 77B**

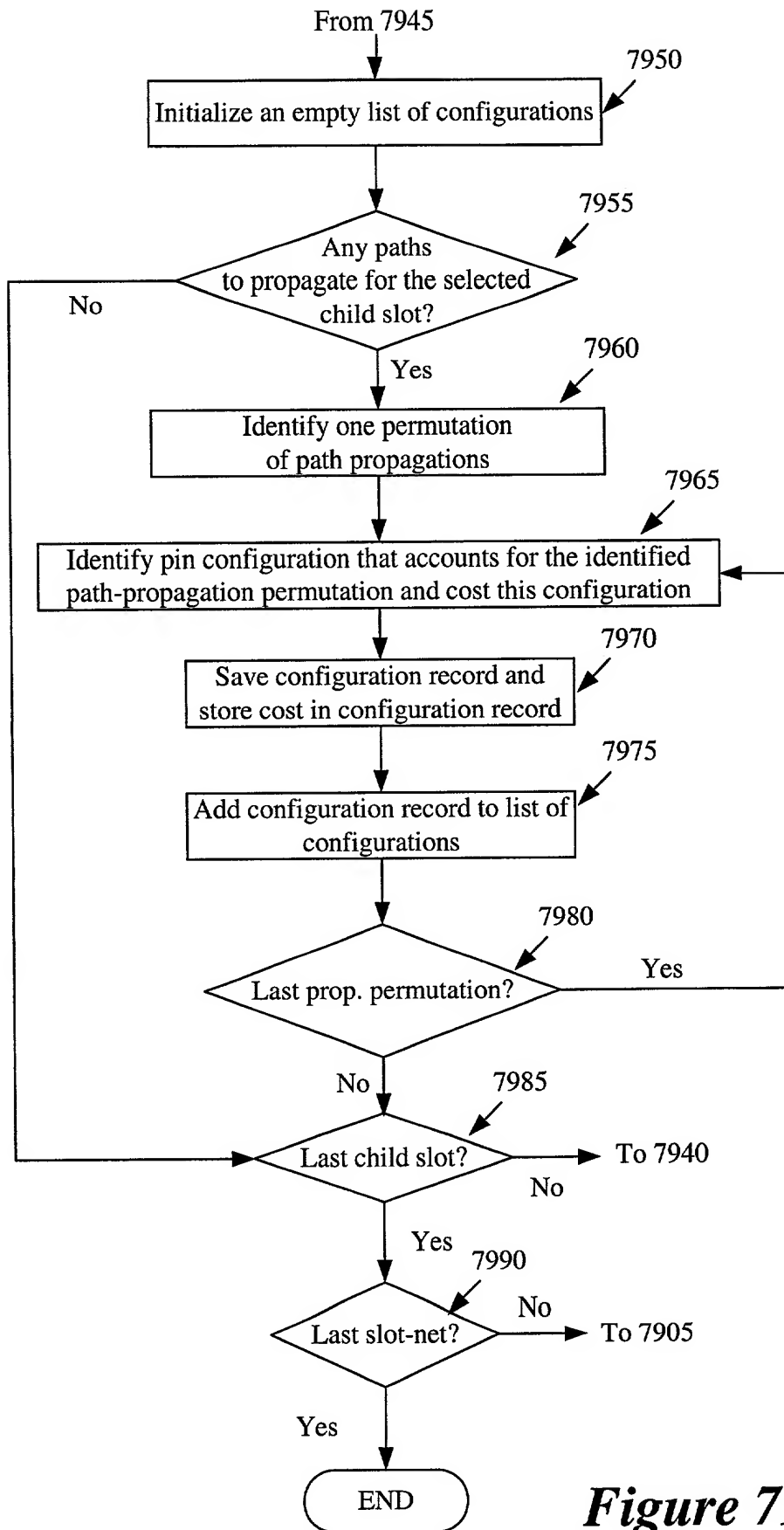


**Figure 78**

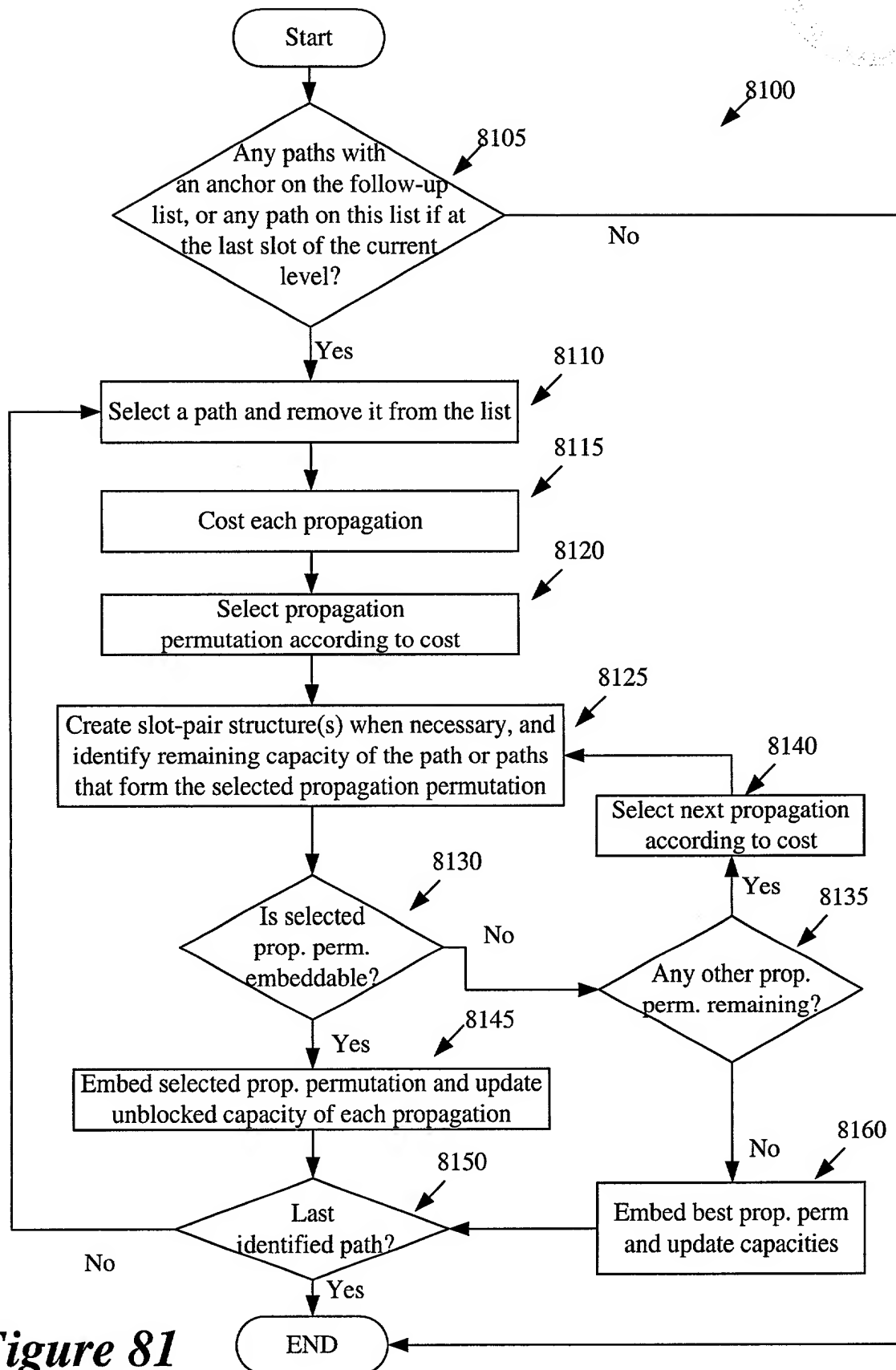


**Figure 79A**

**Figure 79: *Figure 79A*  
*Figure 79B***

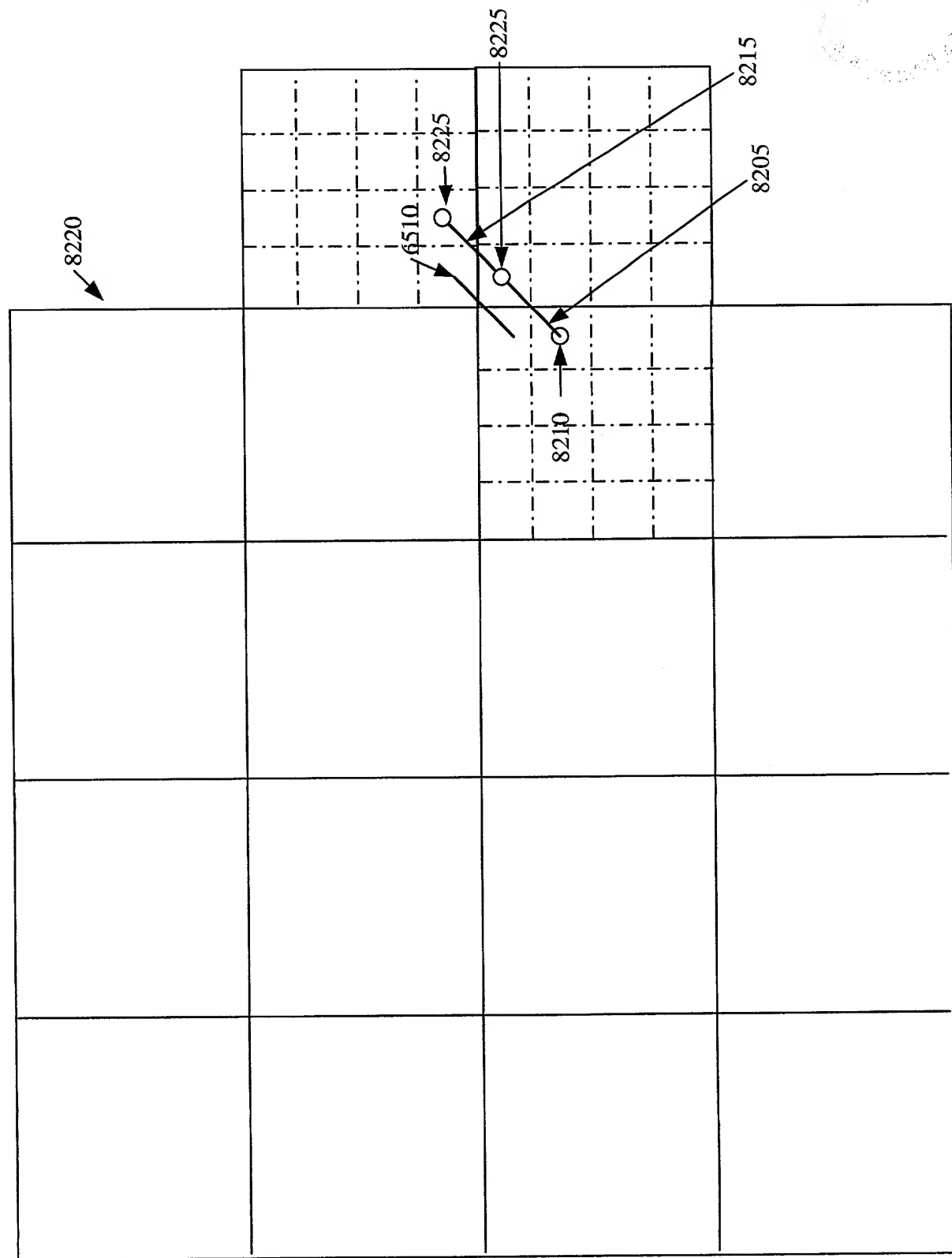


**Figure 79B**

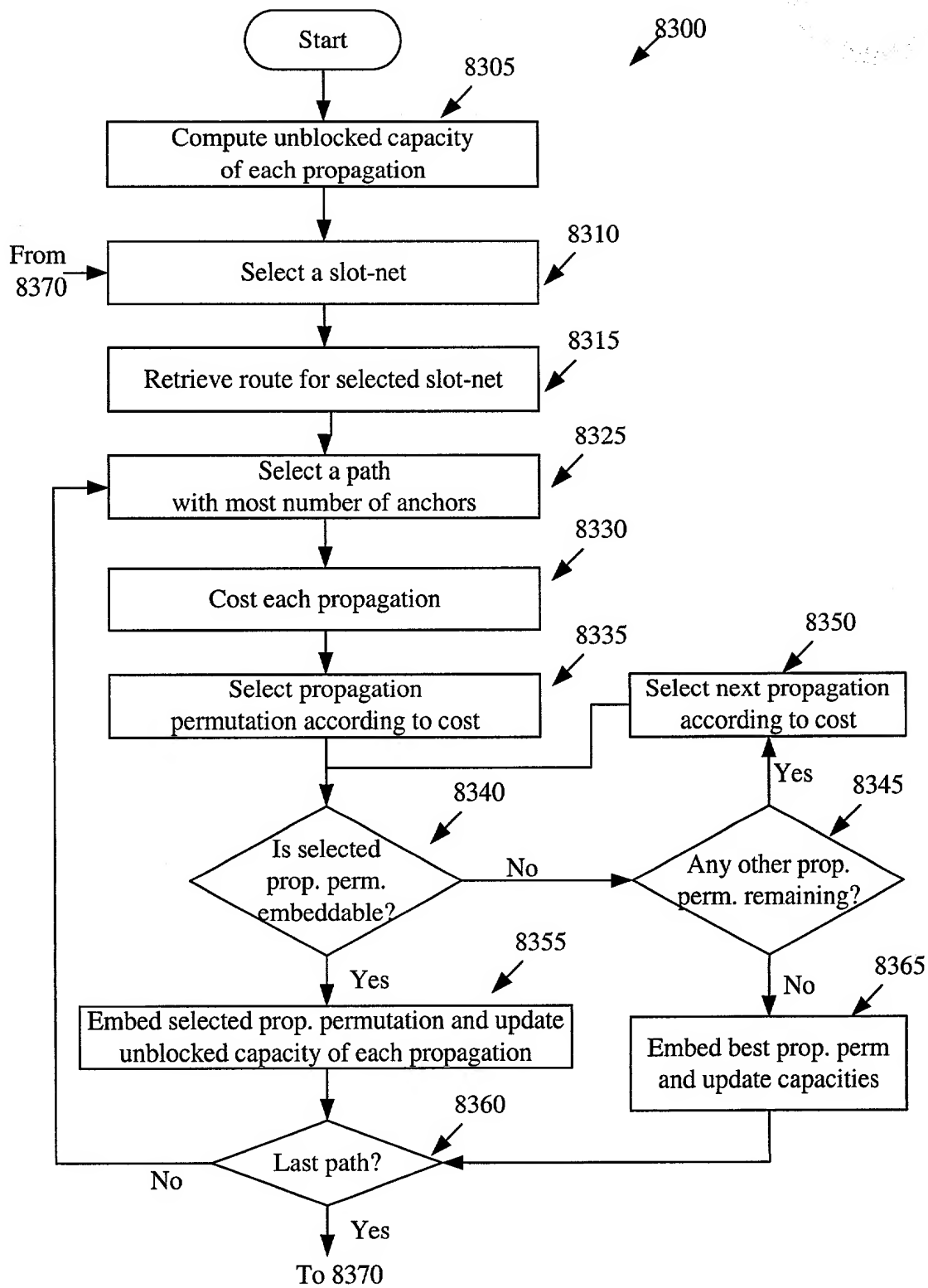


**Figure 81**

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	



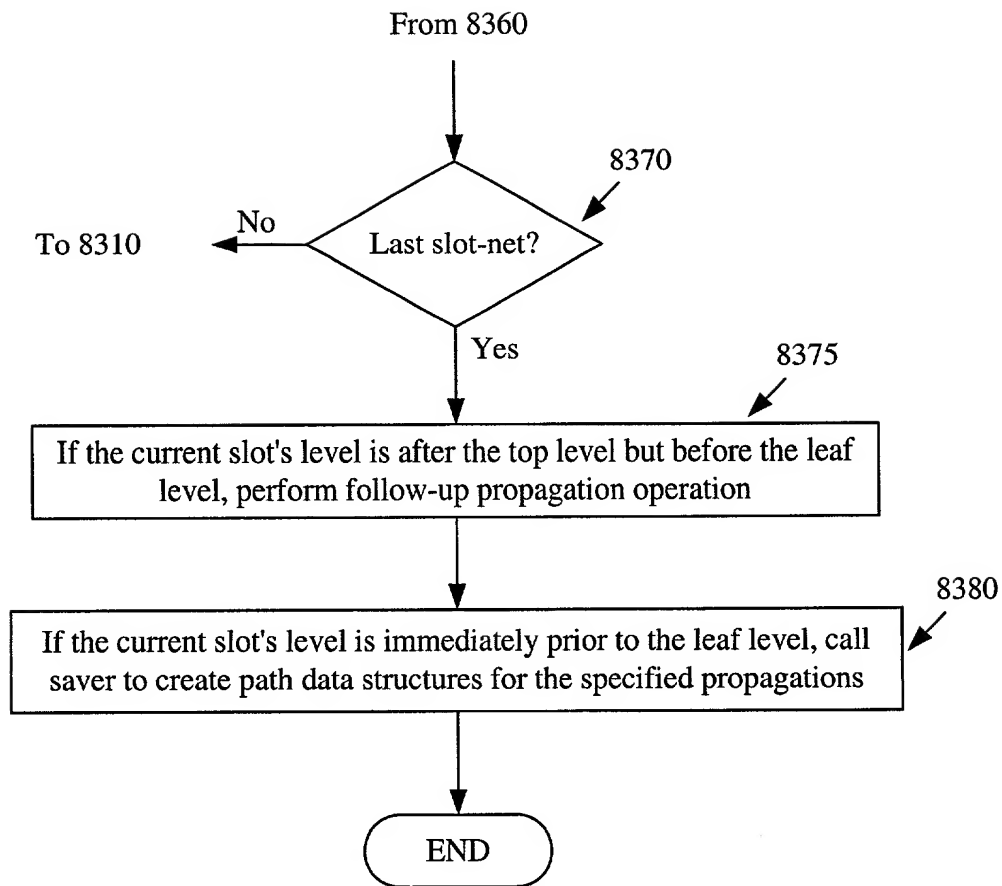
**Figure 82**



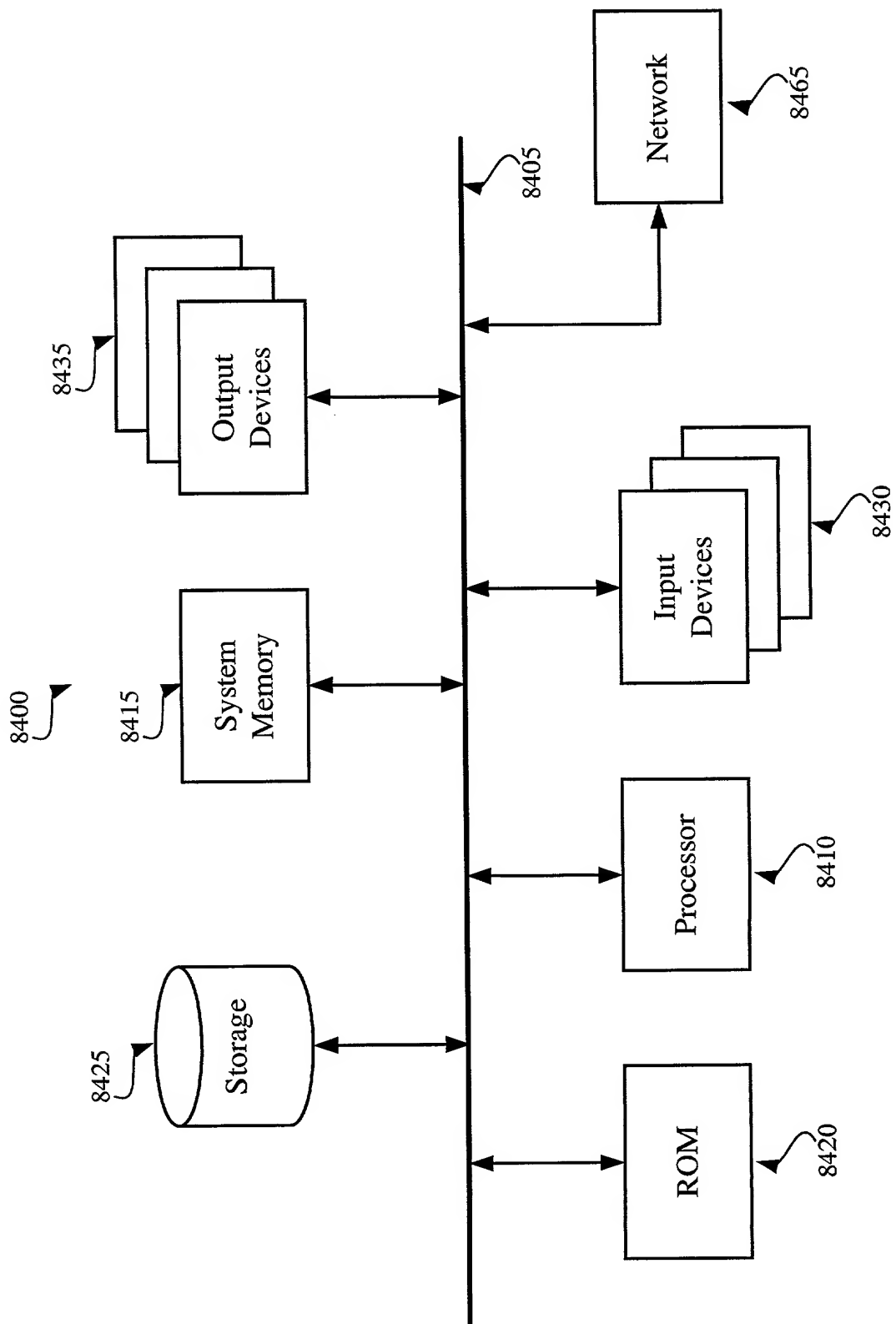
**Figure 83A**

**Figure 83A**  
**Figure 83B**





**Figure 83B**



**Figure 84**